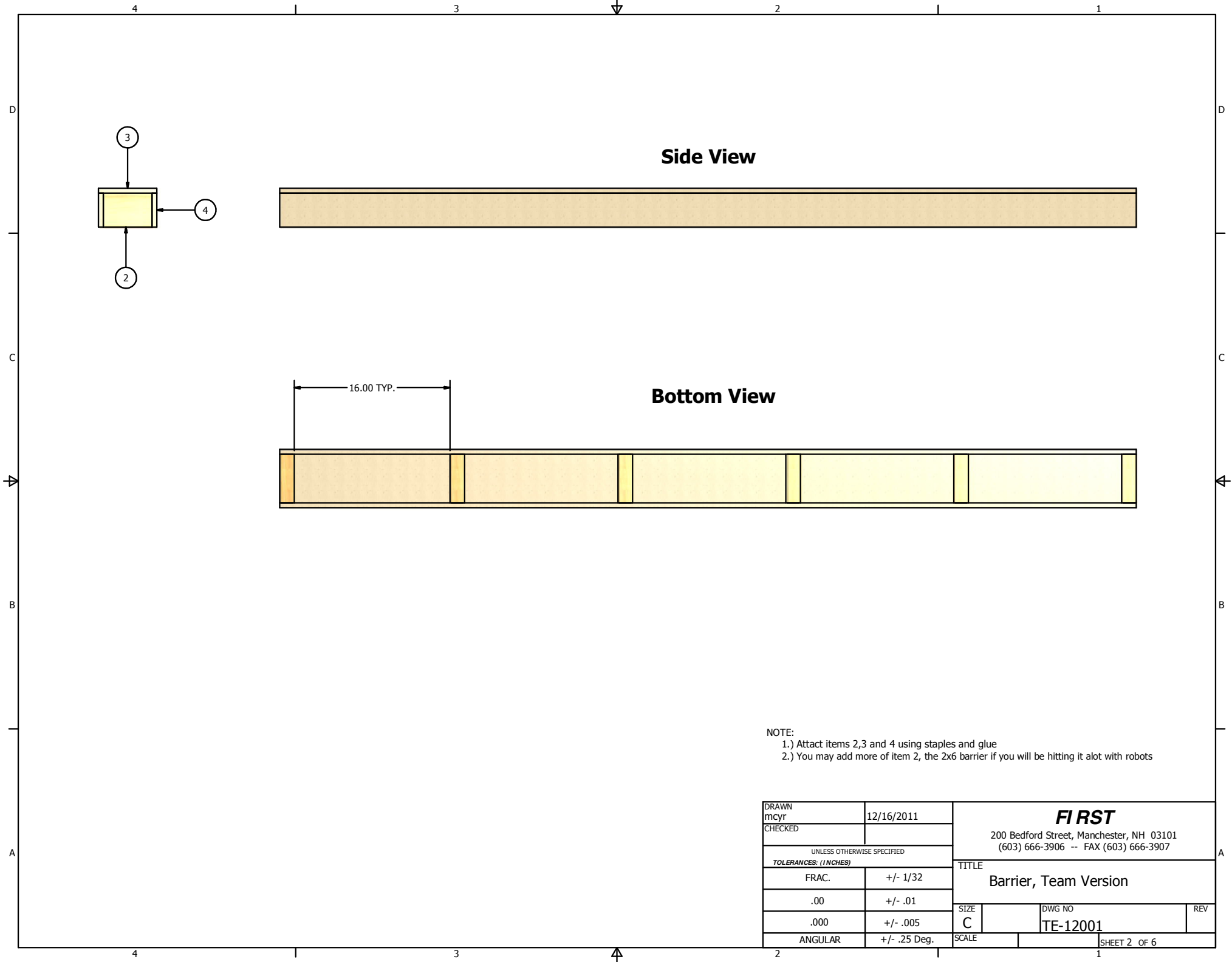


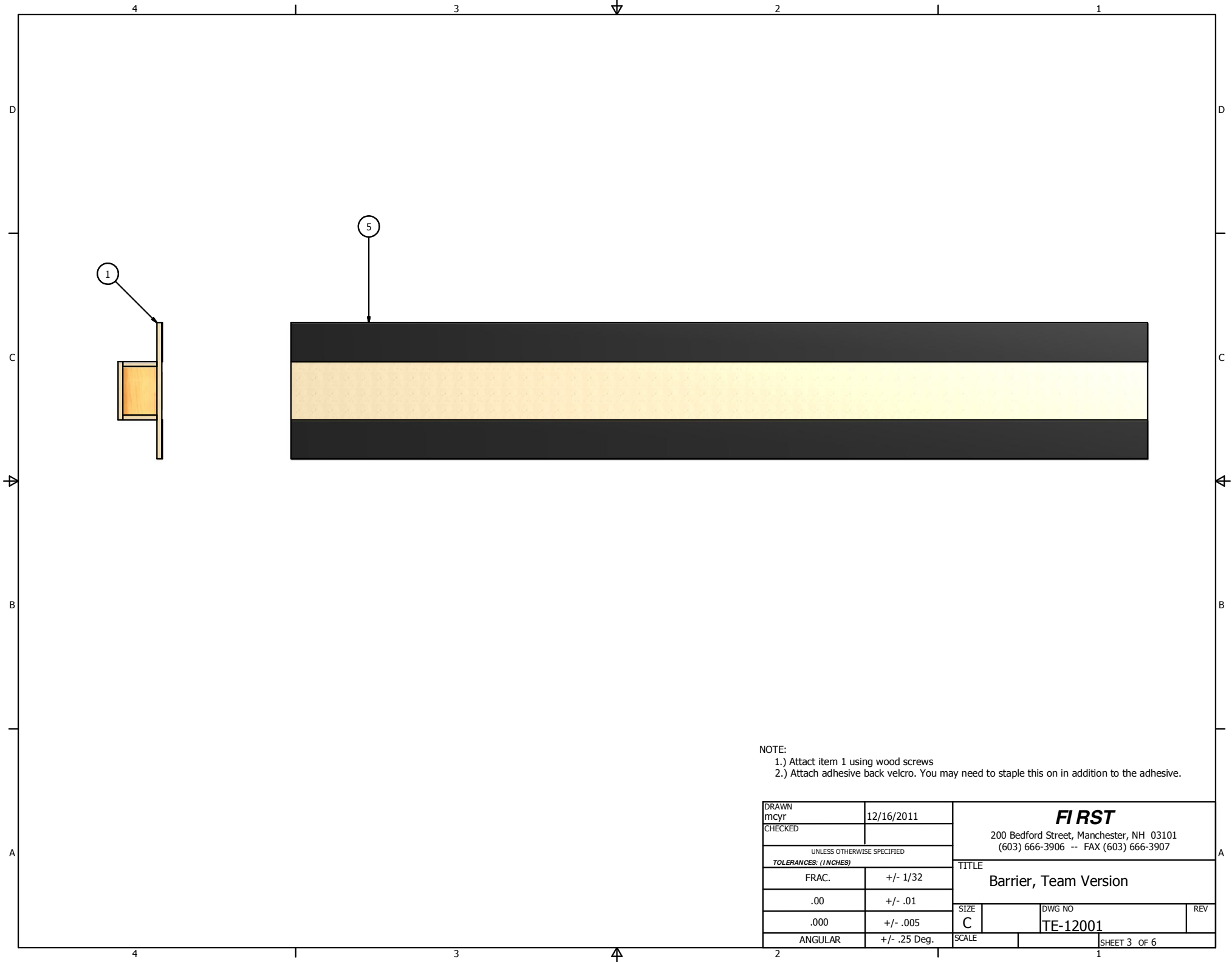
RESOURCES		
Resource	Material	Quantity
1	4 ft. x 8 ft. x1/2" Plywood	1 Sheet
2	2x4 Lumber	30 Inches
3	4" Adhesive Back Hook Velcro	15 Feet
4	Wood Glue	As Needed
5	Staples	As Needed

PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	TE-12001-01	Barrier, Base
2	6	TE-12001-02	2x6, Barrier
3	1	TE-12001-03	Plywood Top, Barrier
4	2	TE-12001-04	Plywood Side, Barrier
5	2	TE-12001-05	4" Hook Velcro, Adhesive Backed

DRAWN mcyr	12/16/2011	FIRST 200 Bedford Street, Manchester, NH 03101 (603) 666-3906 -- FAX (603) 666-3907	
CHECKED			
UNLESS OTHERWISE SPECIFIED		TITLE	
TOLERANCES: (INCHES)		Barrier, Team Version	
FRAC.	+/- 1/32	SIZE	DWG NO
.00	+/- .01	C	TE-12001
.000	+/- .005	SCALE	REV
ANGULAR	+/- .25 Deg.		
		SHEET 1 OF 6	

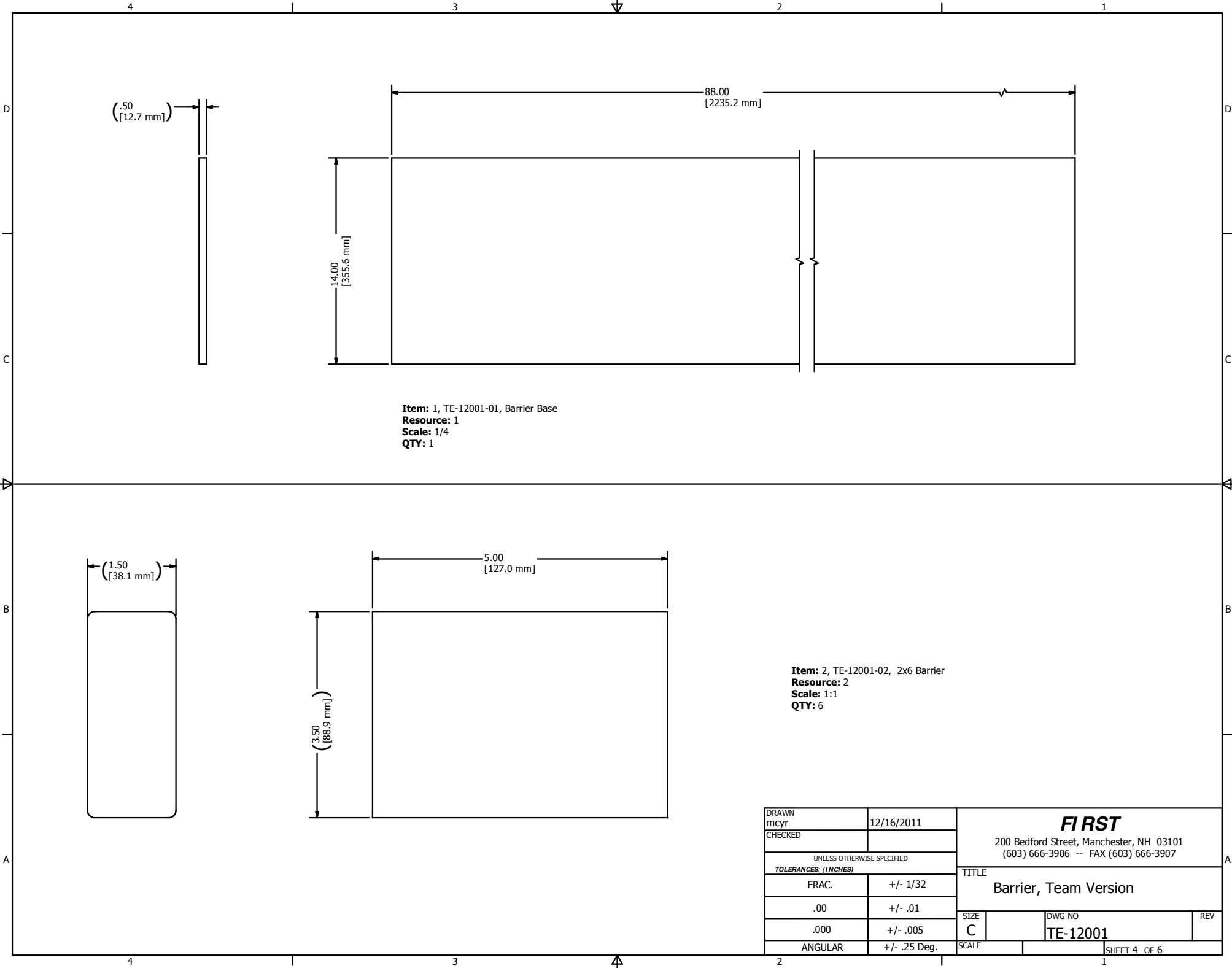


DRAWN mcyr		12/16/2011		<div>FIRST</div> <div>200 Bedford Street, Manchester, NH 03101 (603) 666-3906 -- FAX (603) 666-3907</div>		
CHECKED						
UNLESS OTHERWISE SPECIFIED				<div>TITLE</div> <div>Barrier, Team Version</div> <div><div>SIZE</div><div>C</div><div>DWG NO</div><div>TE-12001</div><div>REV</div></div>		
TOLERANCES: (INCHES)						
FRAC.		+/- 1/32				
.00		+/- .01				
.000		+/- .005				
ANGULAR		+/- .25 Deg.		SCALE		SHEET 2 OF 6



NOTE:
1.) Attact item 1 using wood screws
2.) Attach adhesive back velcro. You may need to staple this on in addition to the adhesive.

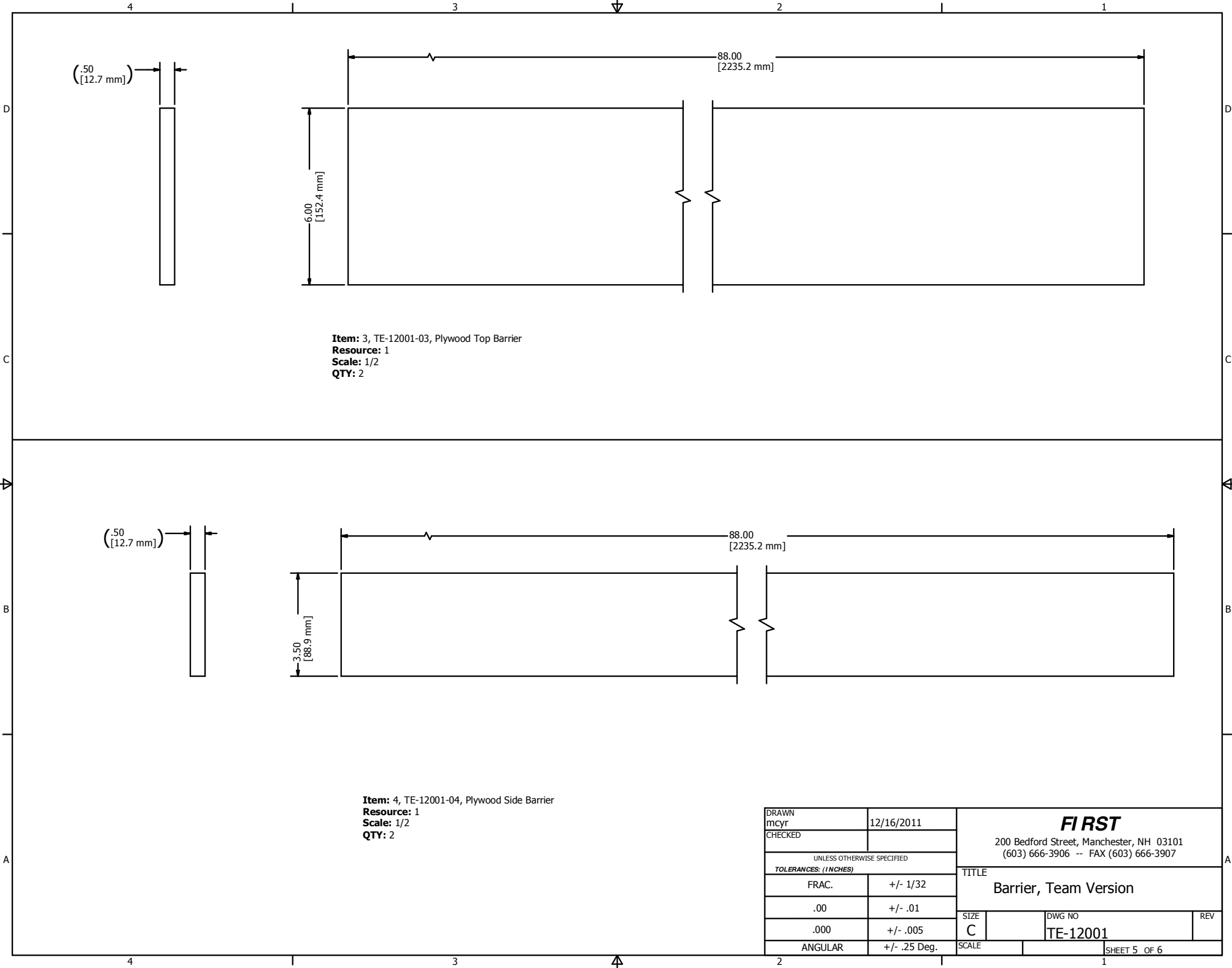
DRAWN mcyr	12/16/2011	FIRST 200 Bedford Street, Manchester, NH 03101 (603) 666-3906 -- FAX (603) 666-3907		
CHECKED				
UNLESS OTHERWISE SPECIFIED		TITLE Barrier, Team Version		
TOLERANCES: (INCHES)				
FRAC.	+/- 1/32	SIZE	DWG NO	REV
.00	+/- .01	C	TE-12001	
.000	+/- .005	SCALE		
ANGULAR	+/- .25 Deg.	SHEET 3 OF 6		



Item: 1, TE-12001-01, Barrier Base
Resource: 1
Scale: 1/4
QTY: 1

Item: 2, TE-12001-02, 2x6 Barrier
Resource: 2
Scale: 1:1
QTY: 6

DRAWN mcyr		12/16/2011		<div><div>FIRST</div><div>200 Bedford Street, Manchester, NH 03101 (603) 666-3906 -- FAX (603) 666-3907</div></div>			
CHECKED							
UNLESS OTHERWISE SPECIFIED				TITLE Barrier, Team Version			
TOLERANCES: (INCHES)							
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						DWG NO TE-12001	
						REV	

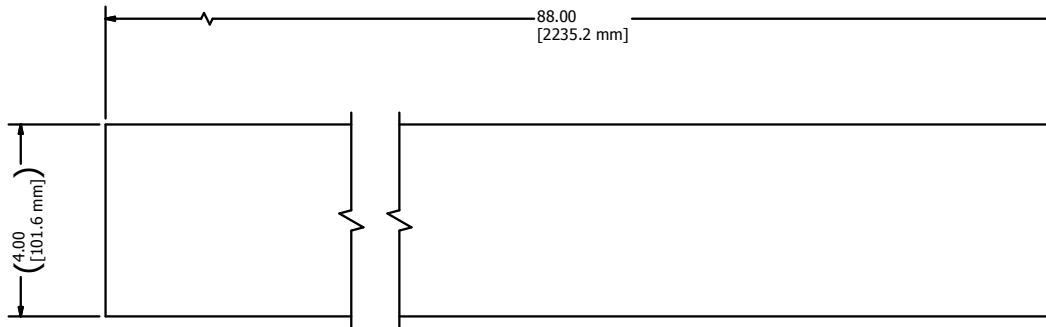


Item: 3, TE-12001-03, Plywood Top Barrier
Resource: 1
Scale: 1/2
QTY: 2

Item: 4, TE-12001-04, Plywood Side Barrier
Resource: 1
Scale: 1/2
QTY: 2

DRAWN mcyr		12/16/2011		<div>FIRST</div> <div>200 Bedford Street, Manchester, NH 03101 (603) 666-3906 -- FAX (603) 666-3907</div>		
CHECKED						
UNLESS OTHERWISE SPECIFIED						
TOLERANCES: (INCHES)				<div>TITLE</div> <div>Barrier, Team Version</div> <div><div>SIZE</div><div>C</div><div>DWG NO</div><div>TE-12001</div><div>REV</div></div>		
FRAC.		+/- 1/32				
.00		+/- .01				
.000		+/- .005				
ANGULAR		+/- .25 Deg.				
SCALE			SHEET 5 OF 6			

(.06
[1.6 mm])



Item: 4, TE-12001-04, 4" Hook adhesive back velcro
Resource: 3
Scale: 1/2
QTY: 2

DRAWN mcyr		12/16/2011		FIRST 200 Bedford Street, Manchester, NH 03101 (603) 666-3906 -- FAX (603) 666-3907		
CHECKED						
UNLESS OTHERWISE SPECIFIED				TITLE Barrier, Team Version		
TOLERANCES: (INCHES)						
FRAC.		+/- 1/32		SIZE C		
.00		+/- .01				
.000		+/- .005				
ANGULAR		+/- .25 Deg.		SCALE		REV
				DWG NO TE-12001		
				SHEET 6 OF 6		

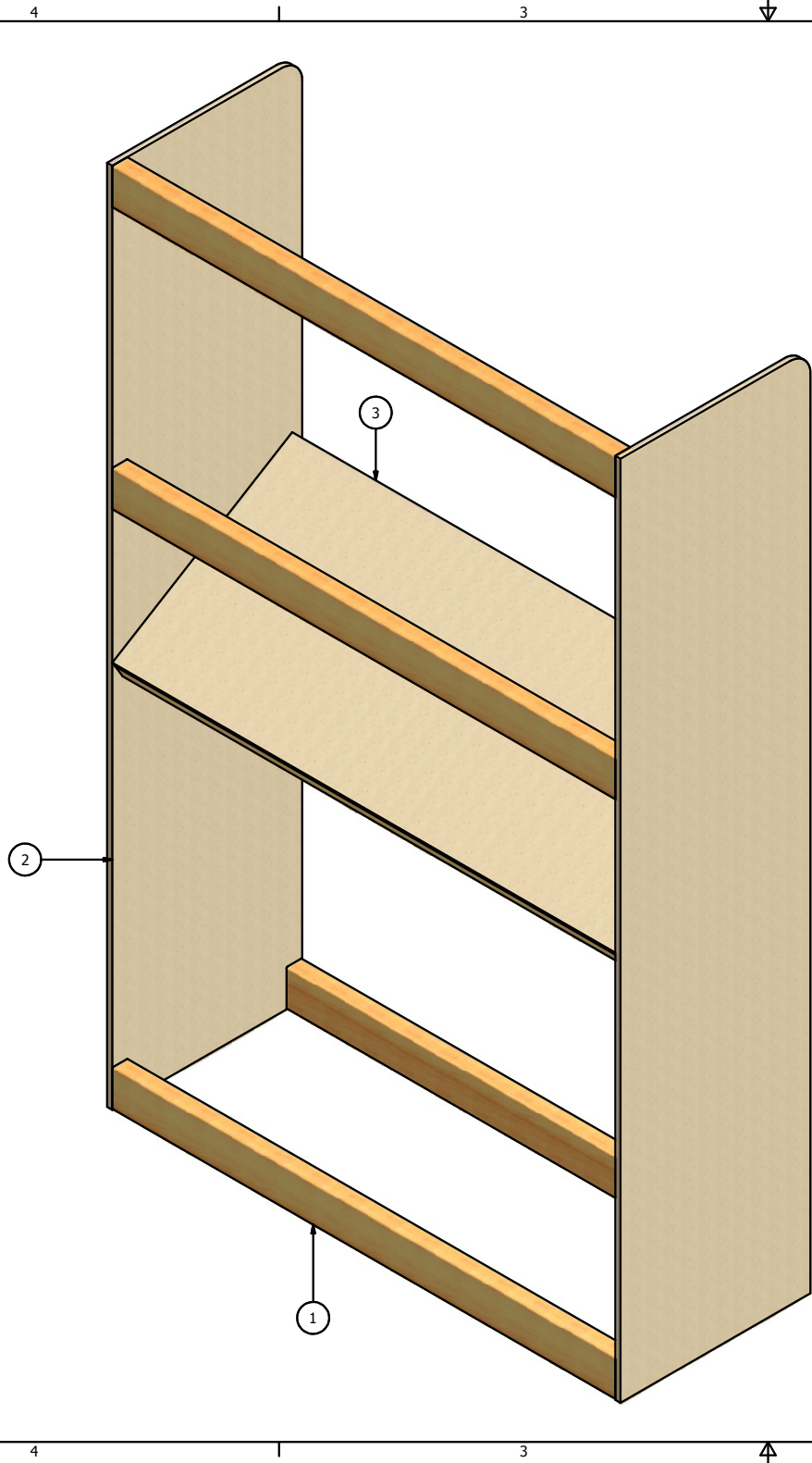
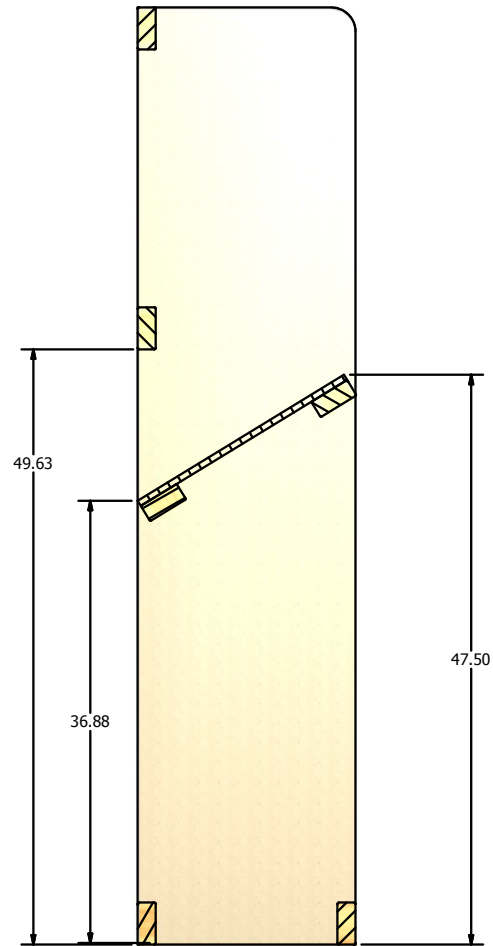
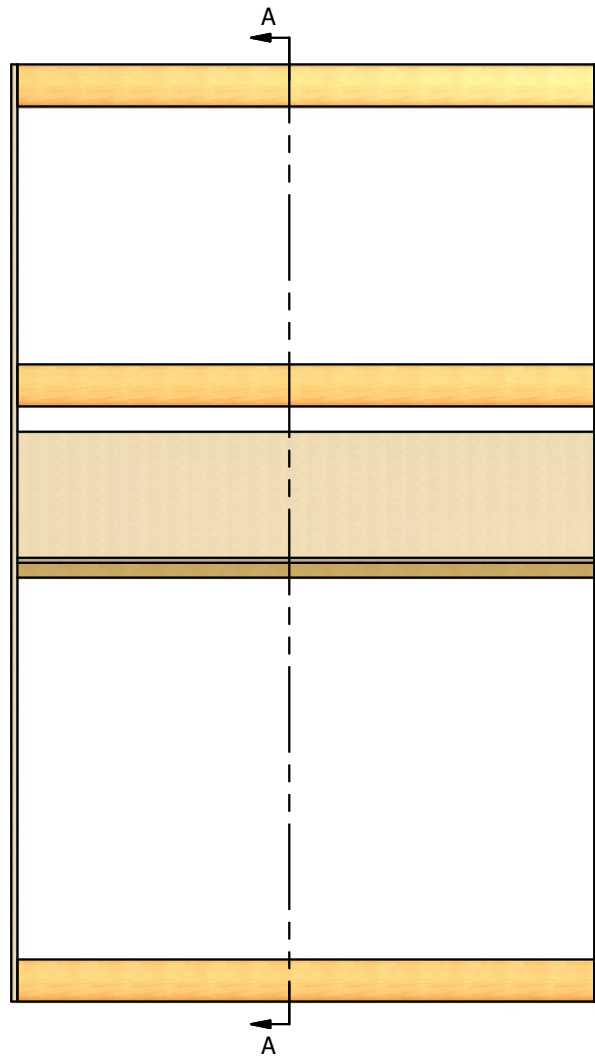


TABLE		
Resource	Material	Quantity
1	2x4 Lumber	20 Feet
2	4 ft. x 8 ft. x 1/2" Plywood	1 Sheet
3	Wood Glue	As Needed
4	Staples	As Needed

PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	6	TE-12002-01	Horizontal Support, Inbound Station
2	2	TE-12002-02	Uprights, Inbound Station
3	1	TE-12002-03	Inbound Shelf

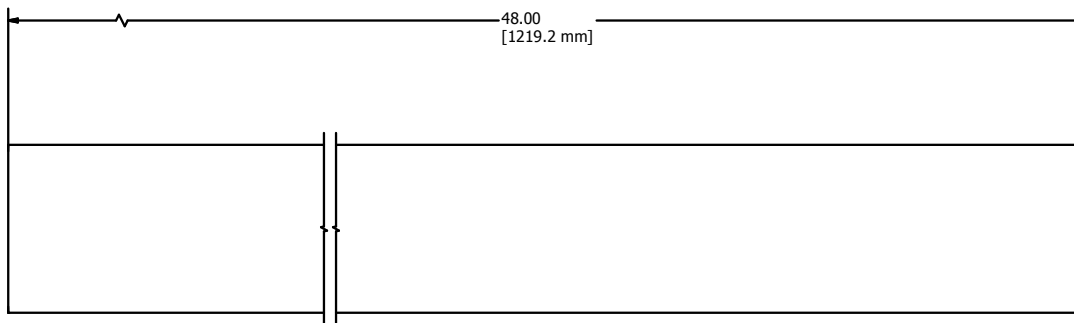
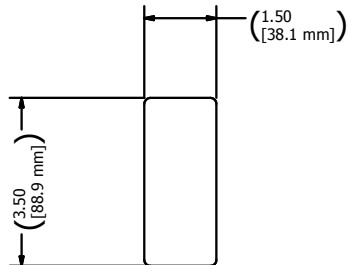
DRAWN mcyr	12/16/2011	FIRST 200 Bedford Street, Manchester, NH 03101 (603) 666-3906 -- FAX (603) 666-3907	
CHECKED			
UNLESS OTHERWISE SPECIFIED		TITLE	
TOLERANCES: (INCHES)		Inbound Station	
FRAC.	+/- 1/32	SIZE	DWG NO
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.000	+/- .005	SCALE	REV
ANGULAR	+/- .25 Deg.		
		SHEET 1 OF 4	



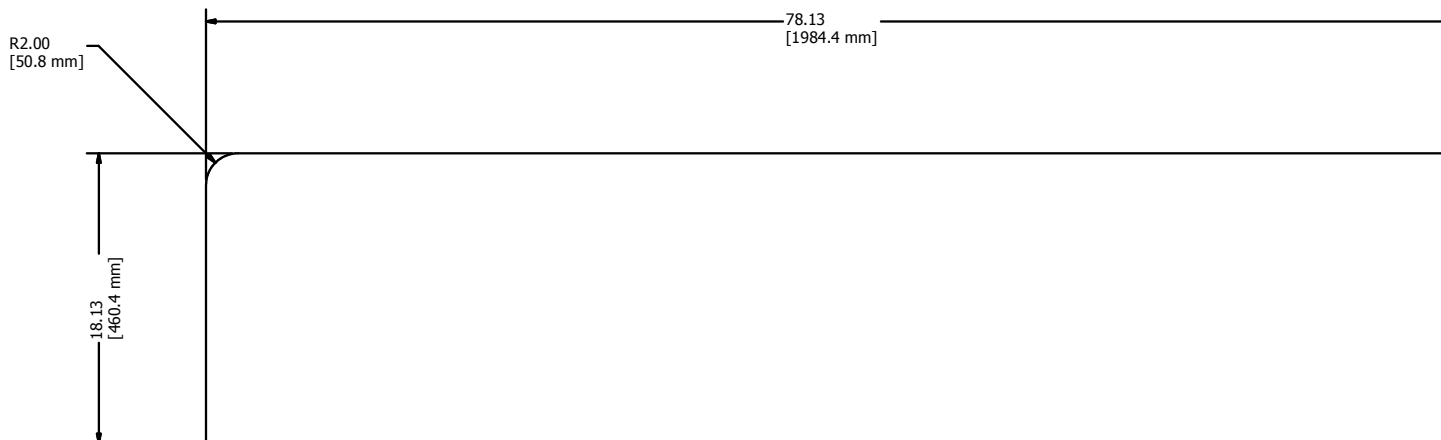
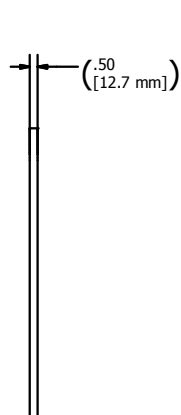
SECTION A-A
SCALE 1/8

NOTE:
1.) Assemble items as shown using staples and wood glue

DRAWN mcyr		12/16/2011		<div>FIRST</div> <div>200 Bedford Street, Manchester, NH 03101</div> <div>(603) 666-3906 -- FAX (603) 666-3907</div>		
CHECKED						
UNLESS OTHERWISE SPECIFIED						
TOLERANCES: (INCHES)				TITLE Inbound Station		
FRAC.		+/- 1/32				
.00		+/- .01		SIZE C		
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ANGULAR		+/- .25 Deg.		SCALE		REV
				DWG NO TE-12002		
				SHEET 2 OF 4		

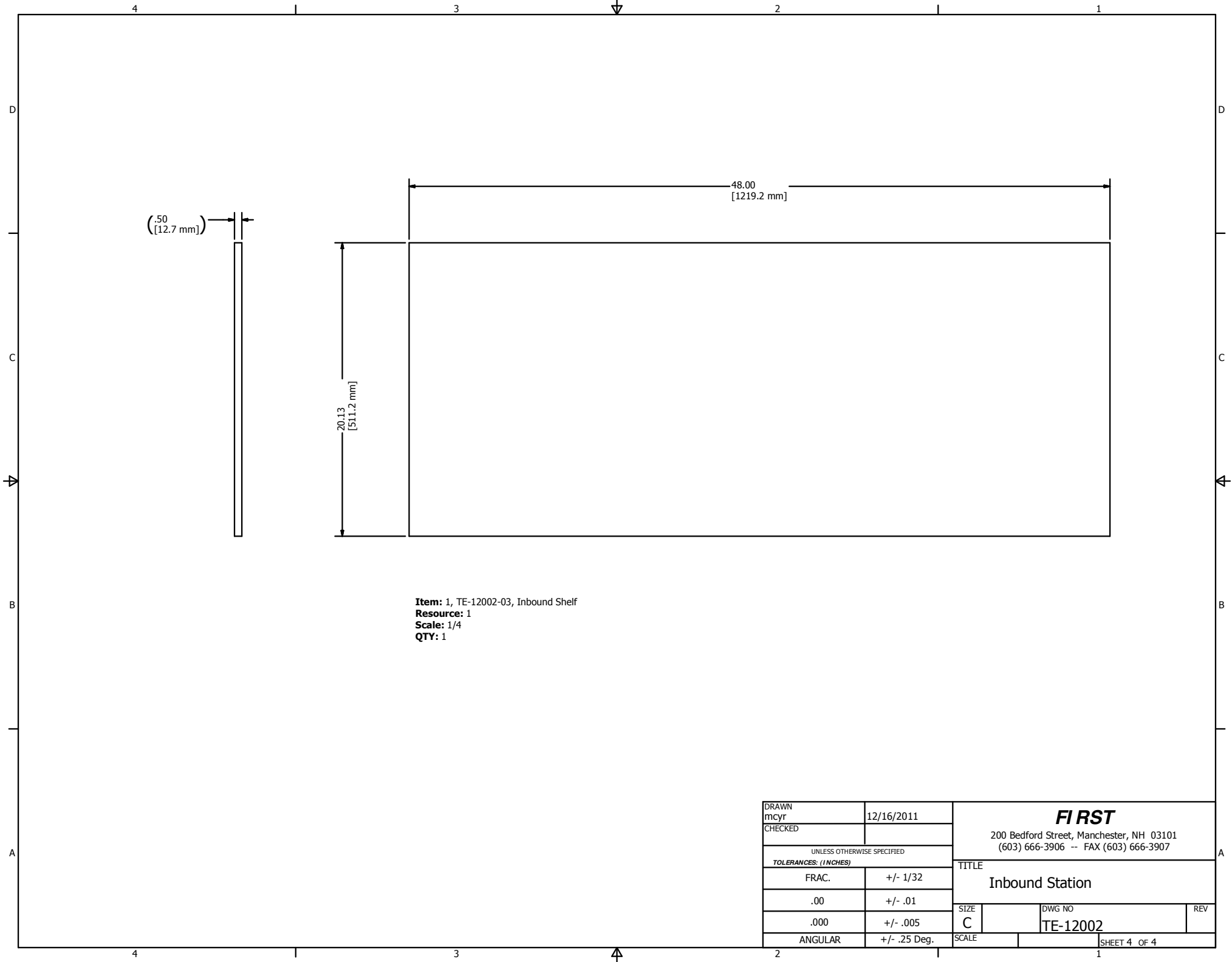


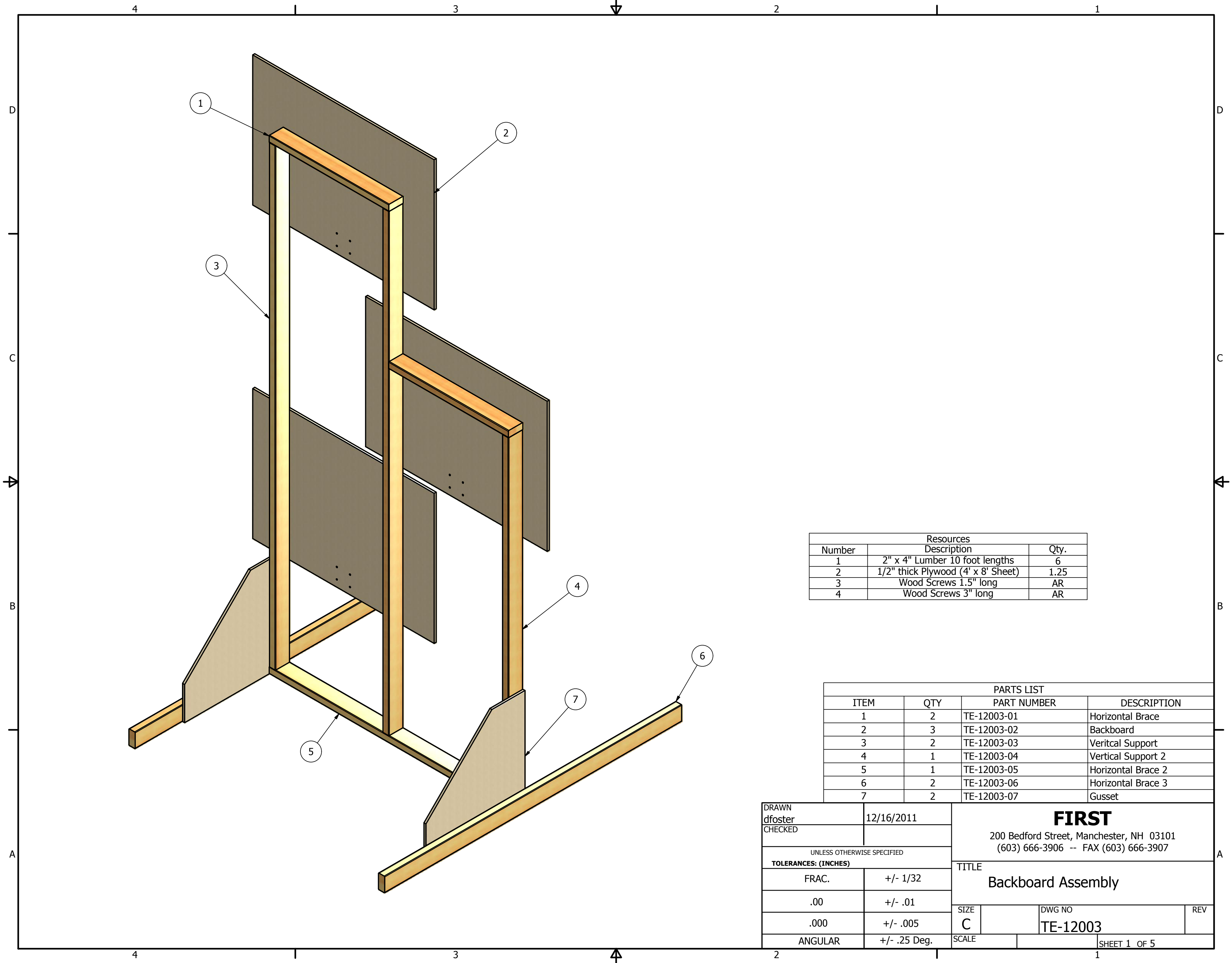
Item: 1, TE-12002-01, Horizontal Support, Inbound Station
Resource: 1
Scale: 1/2
QTY: 5



Item: 1, TE-12002-02, Uprights, Inbound Station
Resource: 1
Scale: 1/6
QTY: 2

DRAWN mcyr		12/16/2011		FIRST 200 Bedford Street, Manchester, NH 03101 (603) 666-3906 -- FAX (603) 666-3907		
CHECKED						
UNLESS OTHERWISE SPECIFIED				TITLE Inbound Station		
TOLERANCES: (INCHES)						
FRAC.		+/- 1/32				
.00		+/- .01				
.000		+/- .005		SIZE C		
ANGULAR		+/- .25 Deg.				
				DWG NO TE-12002		REV
		SCALE		SHEET 3 OF 4		



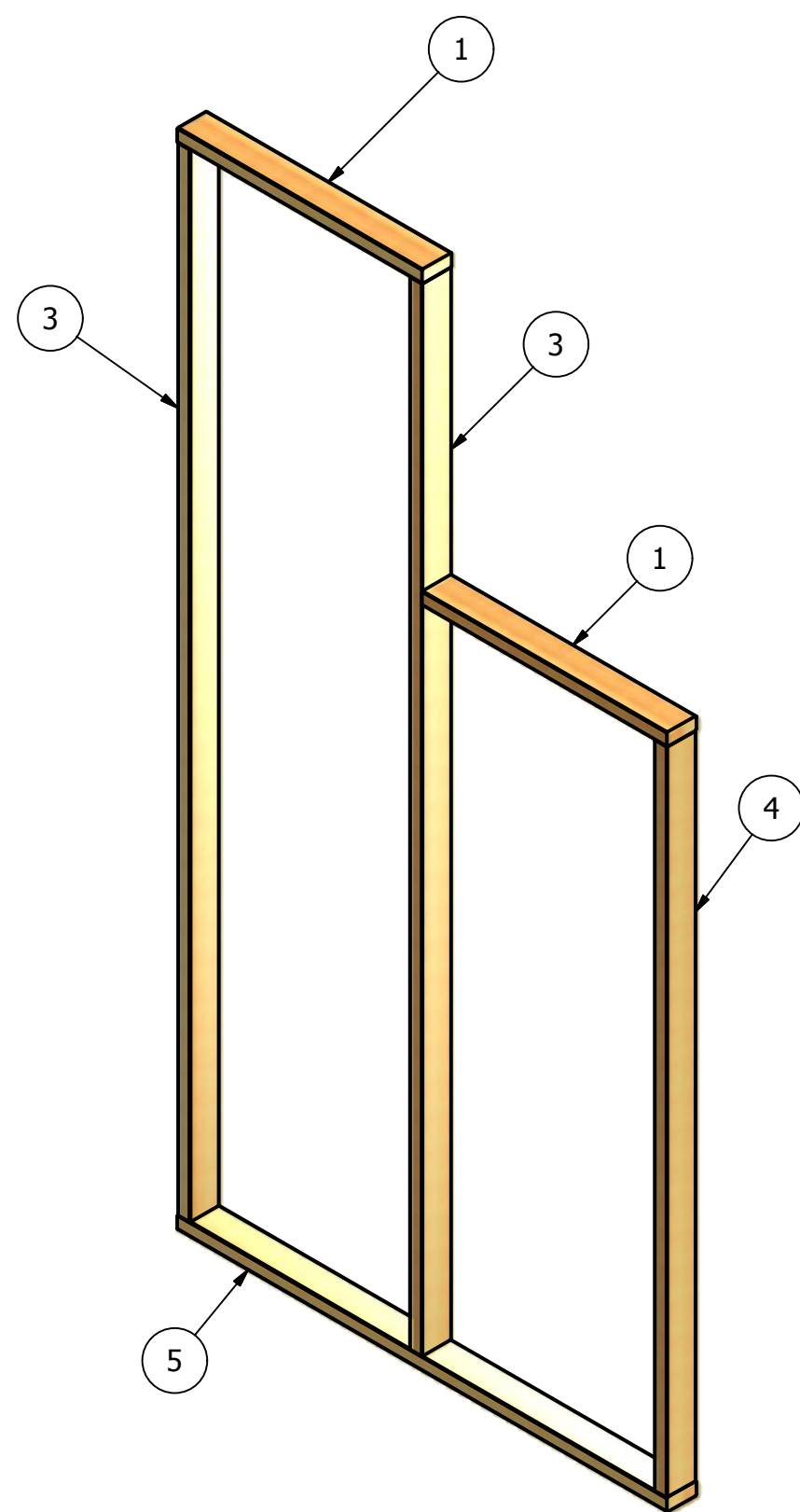


Resources		
Number	Description	Qty.
1	2" x 4" Lumber 10 foot lengths	6
2	1/2" thick Plywood (4' x 8' Sheet)	1.25
3	Wood Screws 1.5" long	AR
4	Wood Screws 3" long	AR

PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	TE-12003-01	Horizontal Brace
2	3	TE-12003-02	Backboard
3	2	TE-12003-03	Veritcal Support
4	1	TE-12003-04	Vertical Support 2
5	1	TE-12003-05	Horizontal Brace 2
6	2	TE-12003-06	Horizontal Brace 3
7	2	TE-12003-07	Gusset

DRAWN dfoster		12/16/2011		<div>FIRST</div> <div>200 Bedford Street, Manchester, NH 03101 (603) 666-3906 -- FAX (603) 666-3907</div>			
CHECKED							
UNLESS OTHERWISE SPECIFIED				<div>TITLE</div> <div>Backboard Assembly</div>			
TOLERANCES: (INCHES)							
FRAC.		+/- 1/32					
.00		+/- .01					
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ANGULAR		+/- .25 Deg.		SIZE		DWG NO	REV
				C		TE-12003	
				SCALE			SHEET 1 OF 5

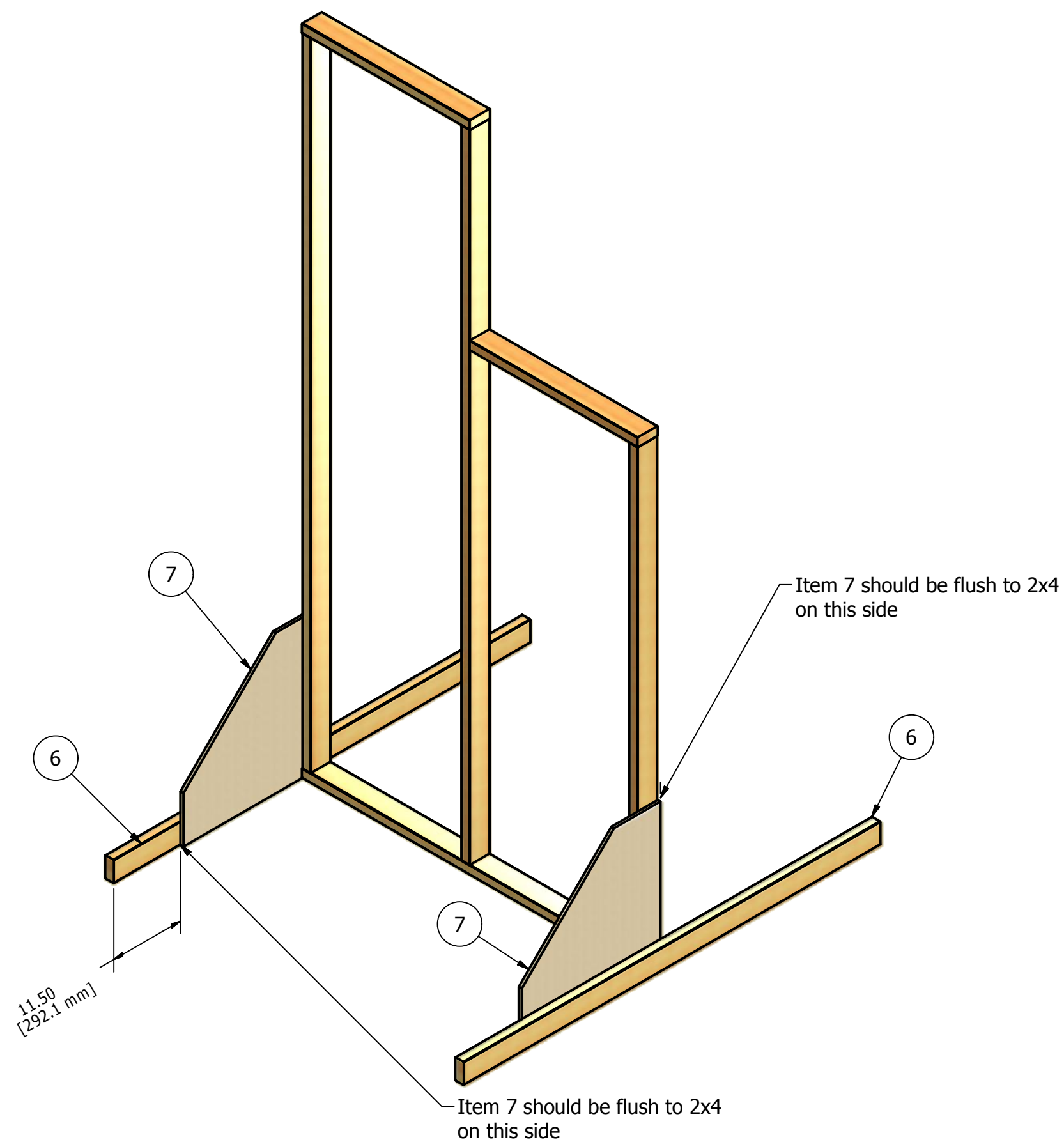
Assembly Step 1



Notes:

1. Attach Items 1, 3, 4 and 5 to one another as shown using 3" Wood Screws as appropriate.

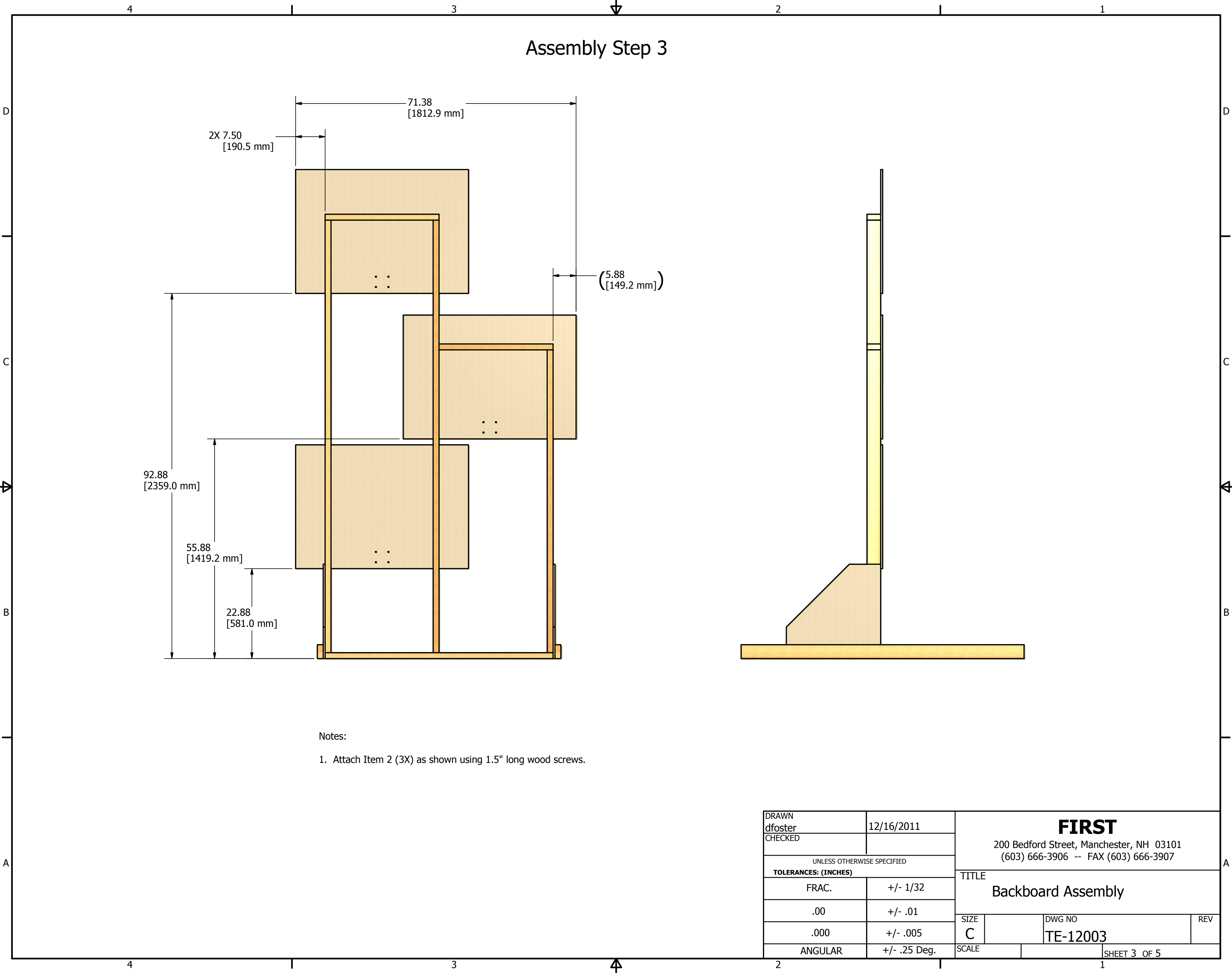
Assembly Step 2



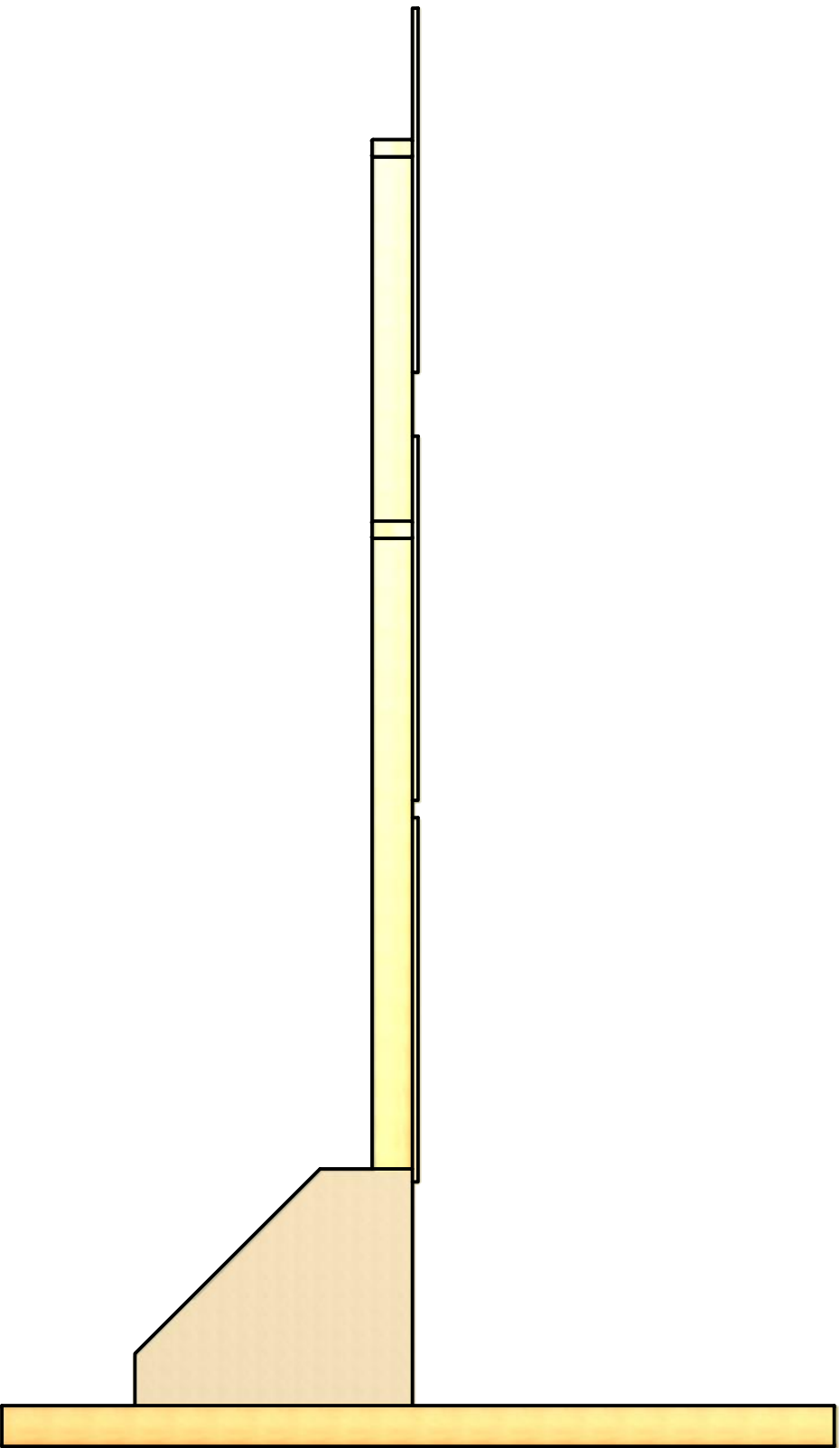
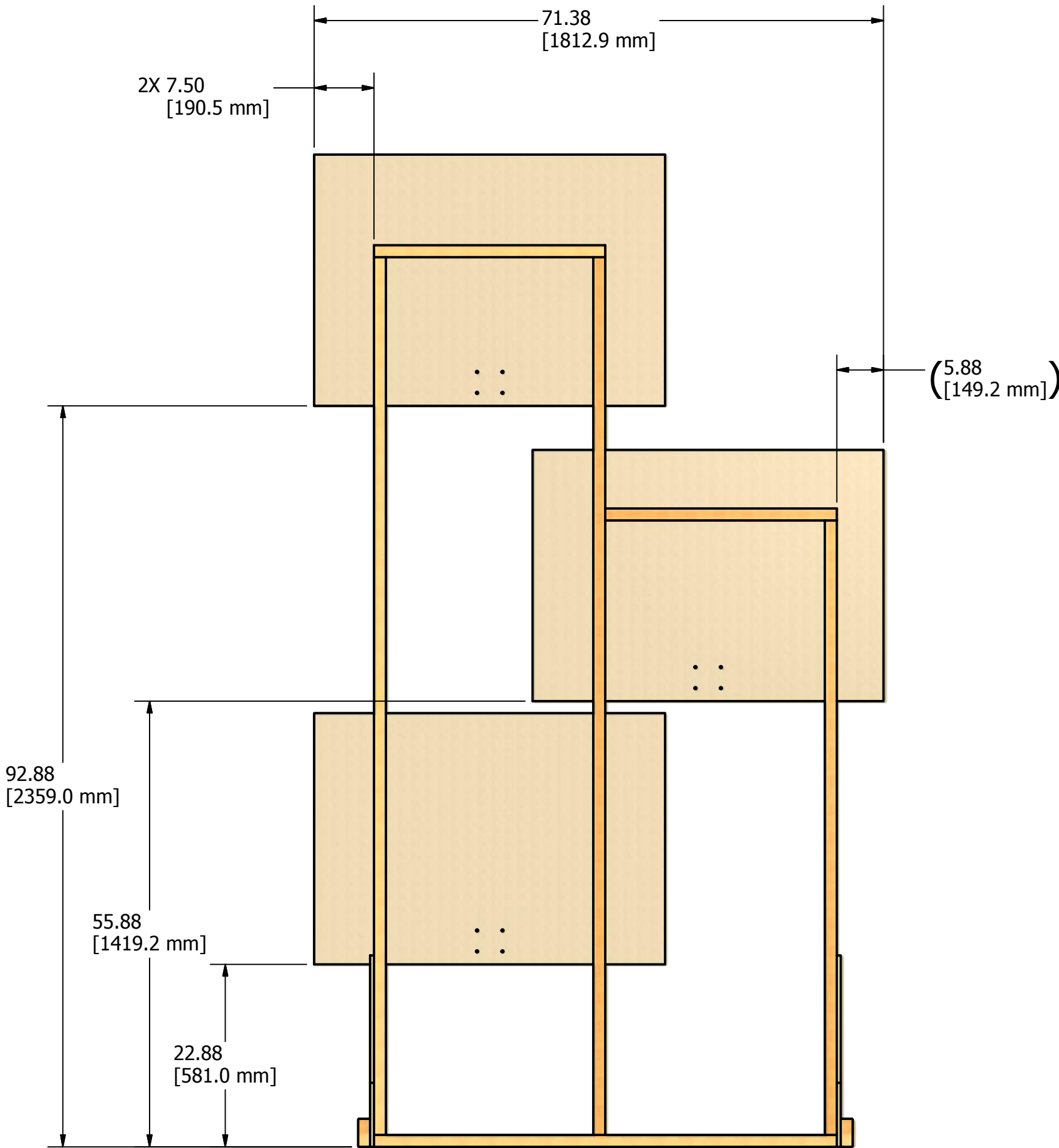
Notes:

1. Attach Item 7 to the assembly from Step 1 using 1.5" long wood screws.
2. Attach Item 6 to Item 7 as shown using using 1.5" long wood screws.

DRAWN dfoster		12/16/2011		<div>FIRST</div> <div>200 Bedford Street, Manchester, NH 03101 (603) 666-3906 -- FAX (603) 666-3907</div>			
CHECKED							
UNLESS OTHERWISE SPECIFIED				TITLE <div>Backboard Assembly</div>			
TOLERANCES: (INCHES)							
FRAC.		+/- 1/32		SIZE C			
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.000		+/- .005		DWG NO TE-12003		REV	
ANGULAR		+/- .25 Deg.		SCALE		SHEET 2 OF 5	



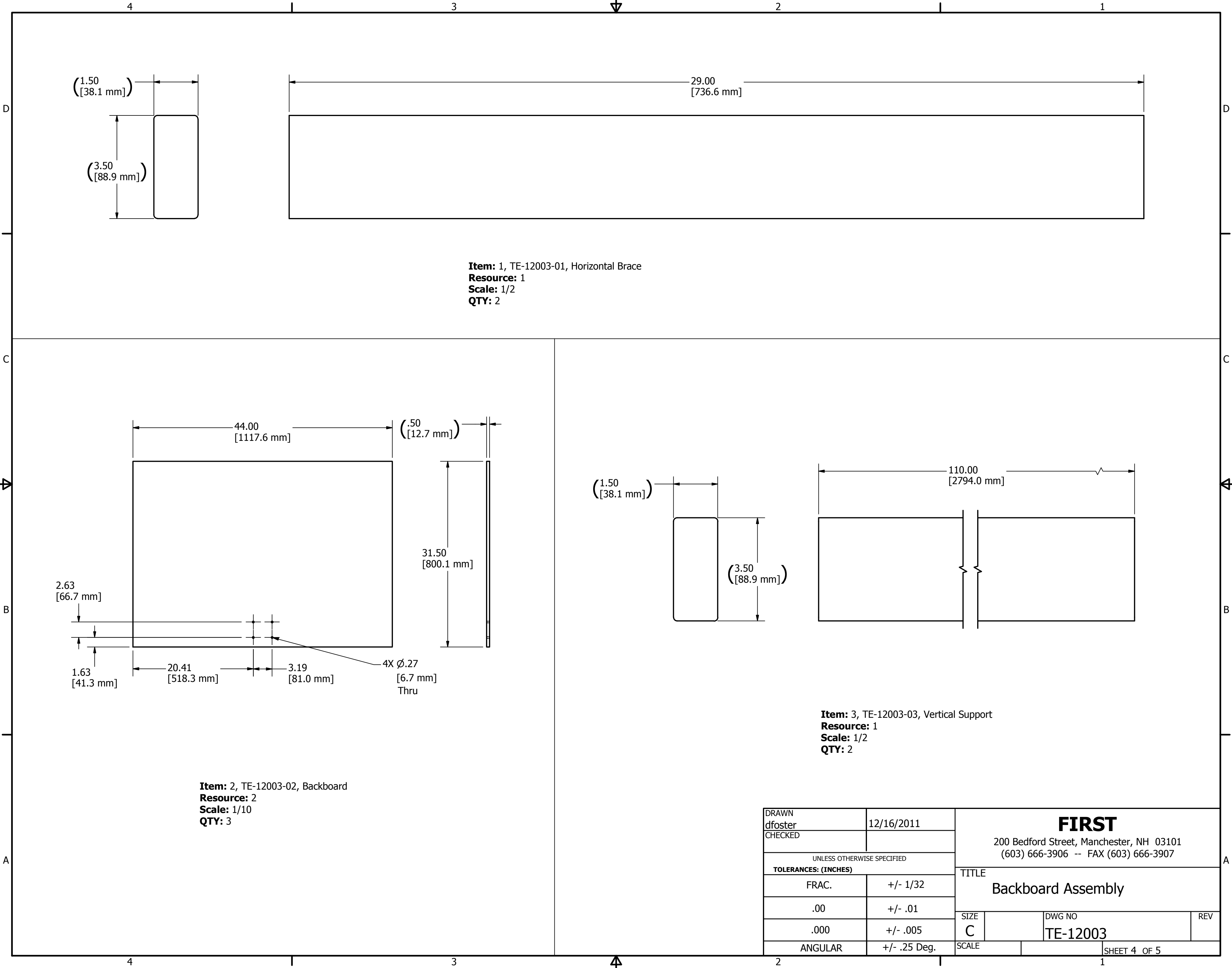
Assembly Step 3

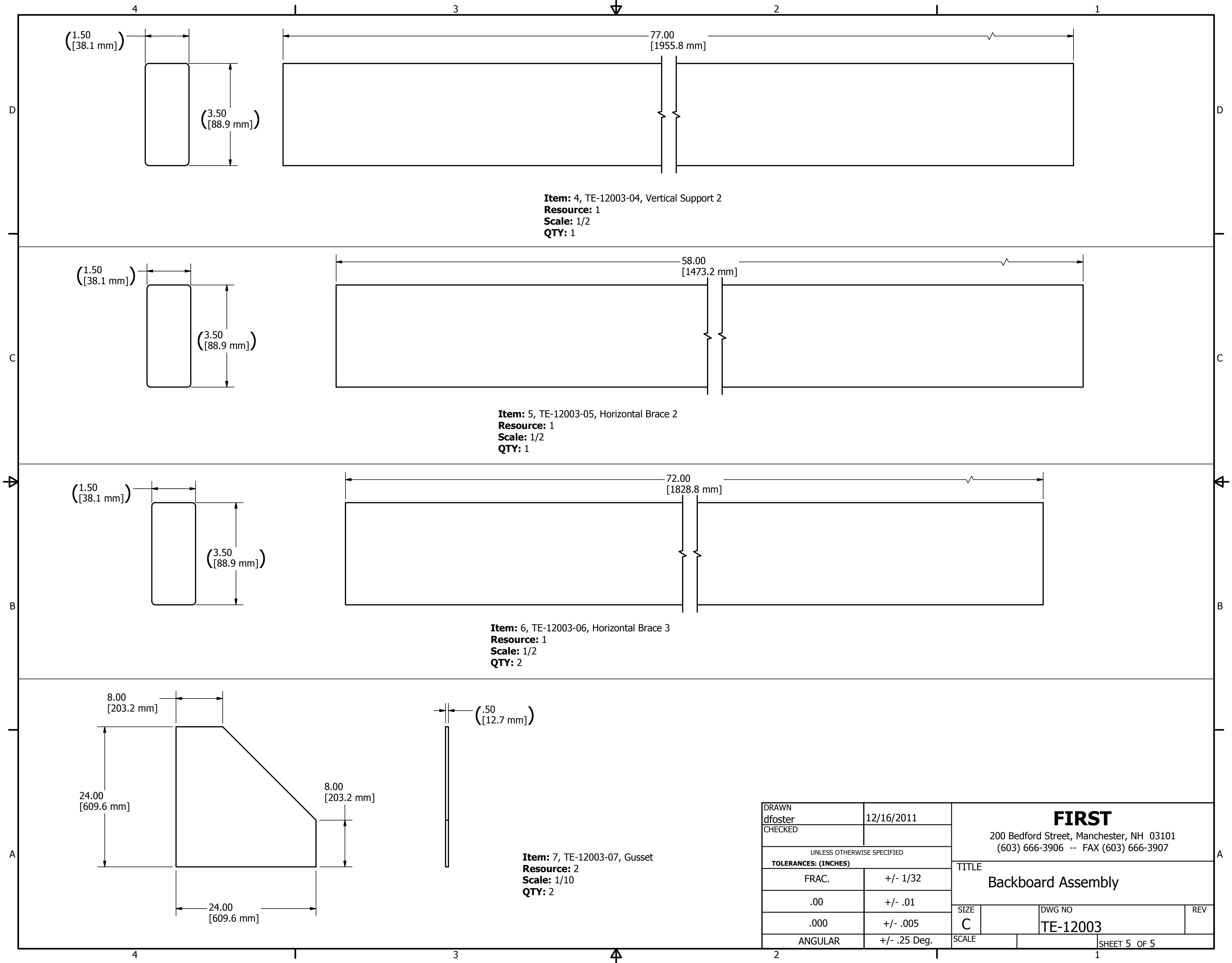


Notes:

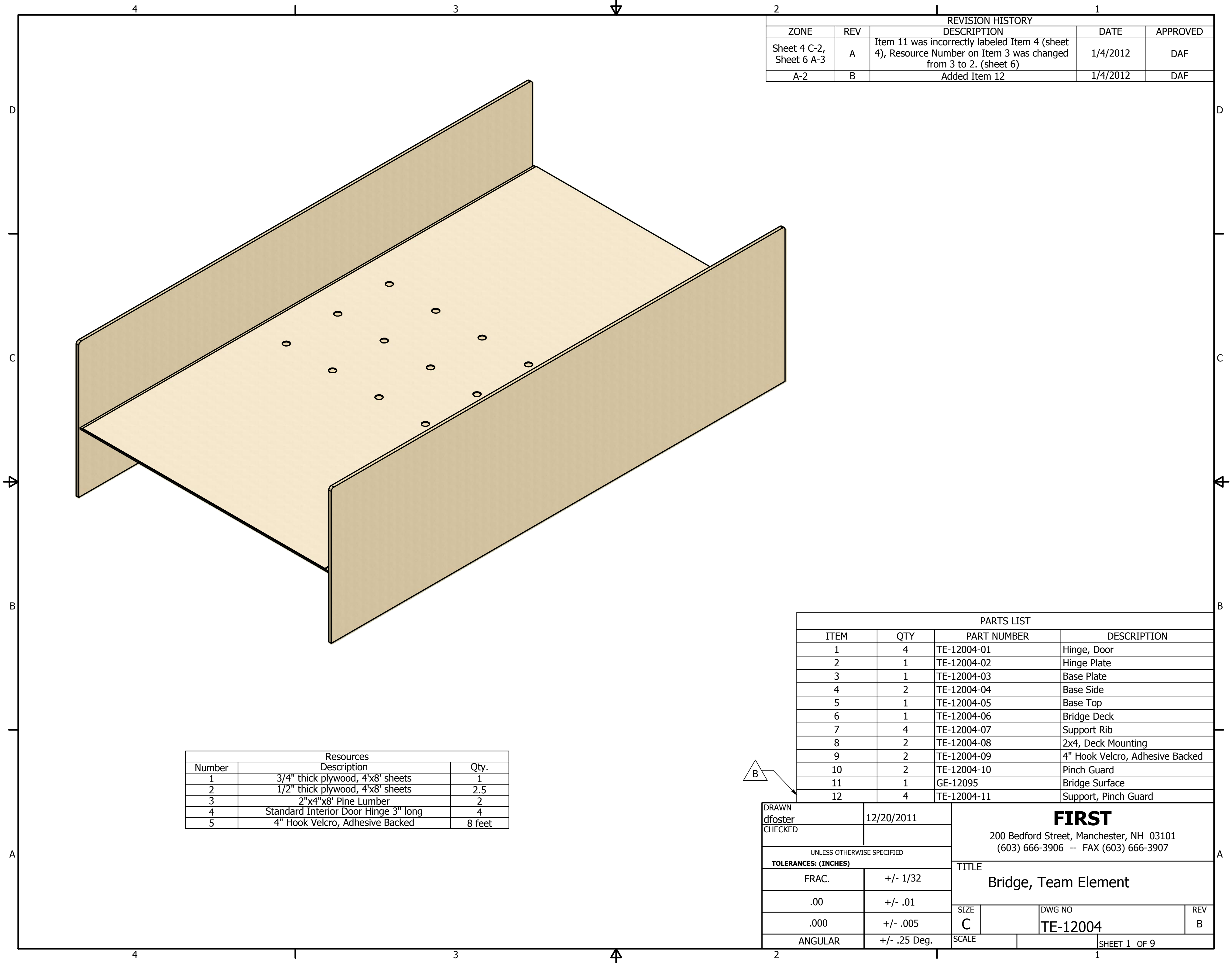
- 1. Attach Item 2 (3X) as shown using 1.5" long wood screws.

DRAWN dfoster		12/16/2011		<div>FIRST</div> <div>200 Bedford Street, Manchester, NH 03101 (603) 666-3906 -- FAX (603) 666-3907</div>			
CHECKED							
UNLESS OTHERWISE SPECIFIED				<div>TITLE</div> <div>Backboard Assembly</div>			
TOLERANCES: (INCHES)							
FRAC.		+/- 1/32					
.00		+/- .01					
.000		+/- .005					
ANGULAR		+/- .25 Deg.		SIZE		DWG NO	REV
				C		TE-12003	
				SCALE			SHEET 3 OF 5





DRAWN dfoster		12/16/2011		FIRST 200 Bedford Street, Manchester, NH 03101 (603) 666-3906 -- FAX (603) 666-3907			
CHECKED							
UNLESS OTHERWISE SPECIFIED TOLERANCES: (INCHES)				TITLE Backboard Assembly			
FRAC.		+/- 1/32					
.00		+/- .01					
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ANGULAR		+/- .25 Deg.					
				SIZE C	DWG NO TE-12003		REV
				SCALE		SHEET 5 OF 5	

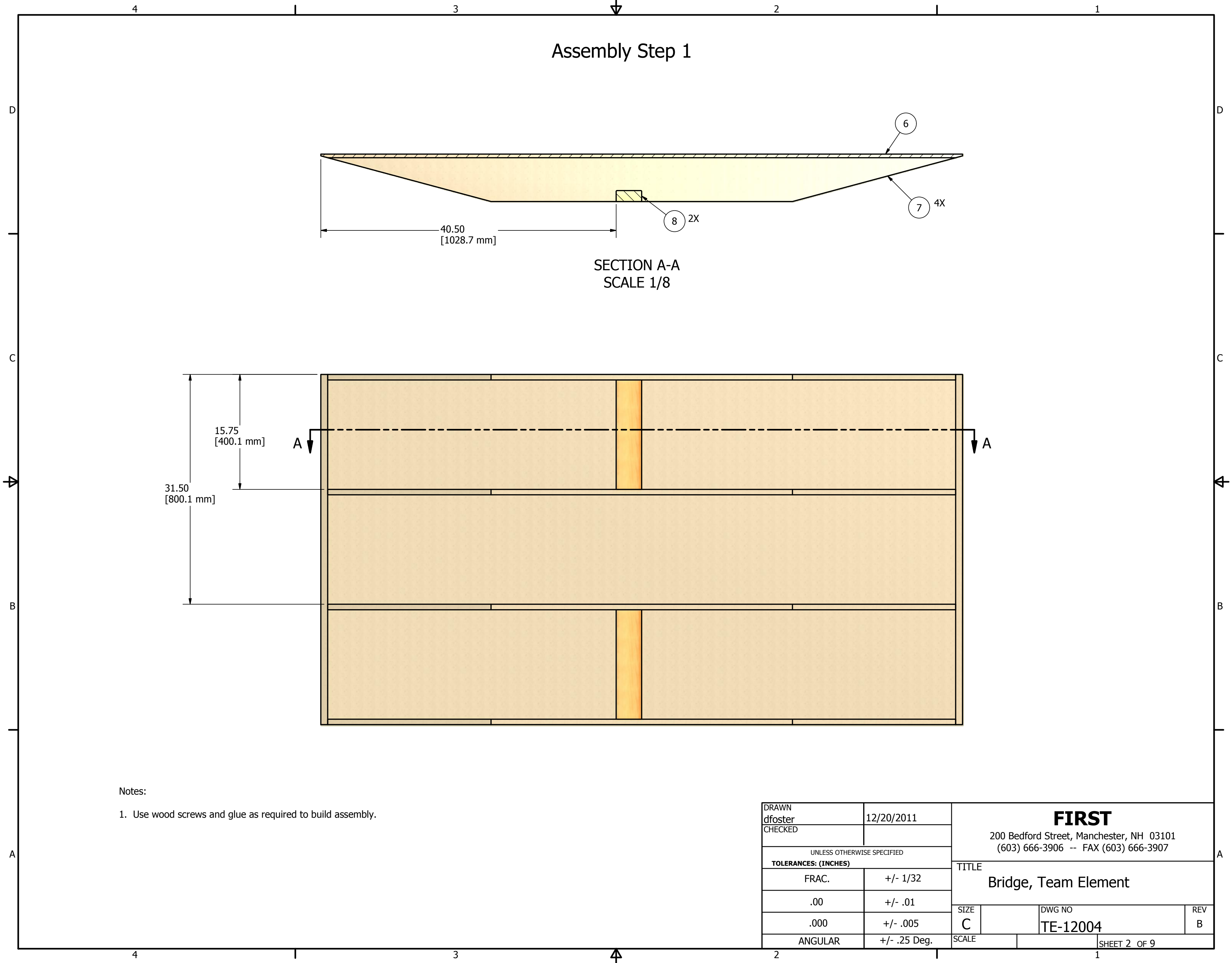


REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	APPROVED
Sheet 4 C-2, Sheet 6 A-3	A	Item 11 was incorrectly labeled Item 4 (sheet 4), Resource Number on Item 3 was changed from 3 to 2. (sheet 6)	1/4/2012	DAF
A-2	B	Added Item 12	1/4/2012	DAF

Resources		
Number	Description	Qty.
1	3/4" thick plywood, 4'x8' sheets	1
2	1/2" thick plywood, 4'x8' sheets	2.5
3	2"x4"x8' Pine Lumber	2
4	Standard Interior Door Hinge 3" long	4
5	4" Hook Velcro, Adhesive Backed	8 feet

PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	4	TE-12004-01	Hinge, Door
2	1	TE-12004-02	Hinge Plate
3	1	TE-12004-03	Base Plate
4	2	TE-12004-04	Base Side
5	1	TE-12004-05	Base Top
6	1	TE-12004-06	Bridge Deck
7	4	TE-12004-07	Support Rib
8	2	TE-12004-08	2x4, Deck Mounting
9	2	TE-12004-09	4" Hook Velcro, Adhesive Backed
10	2	TE-12004-10	Pinch Guard
11	1	GE-12095	Bridge Surface
12	4	TE-12004-11	Support, Pinch Guard

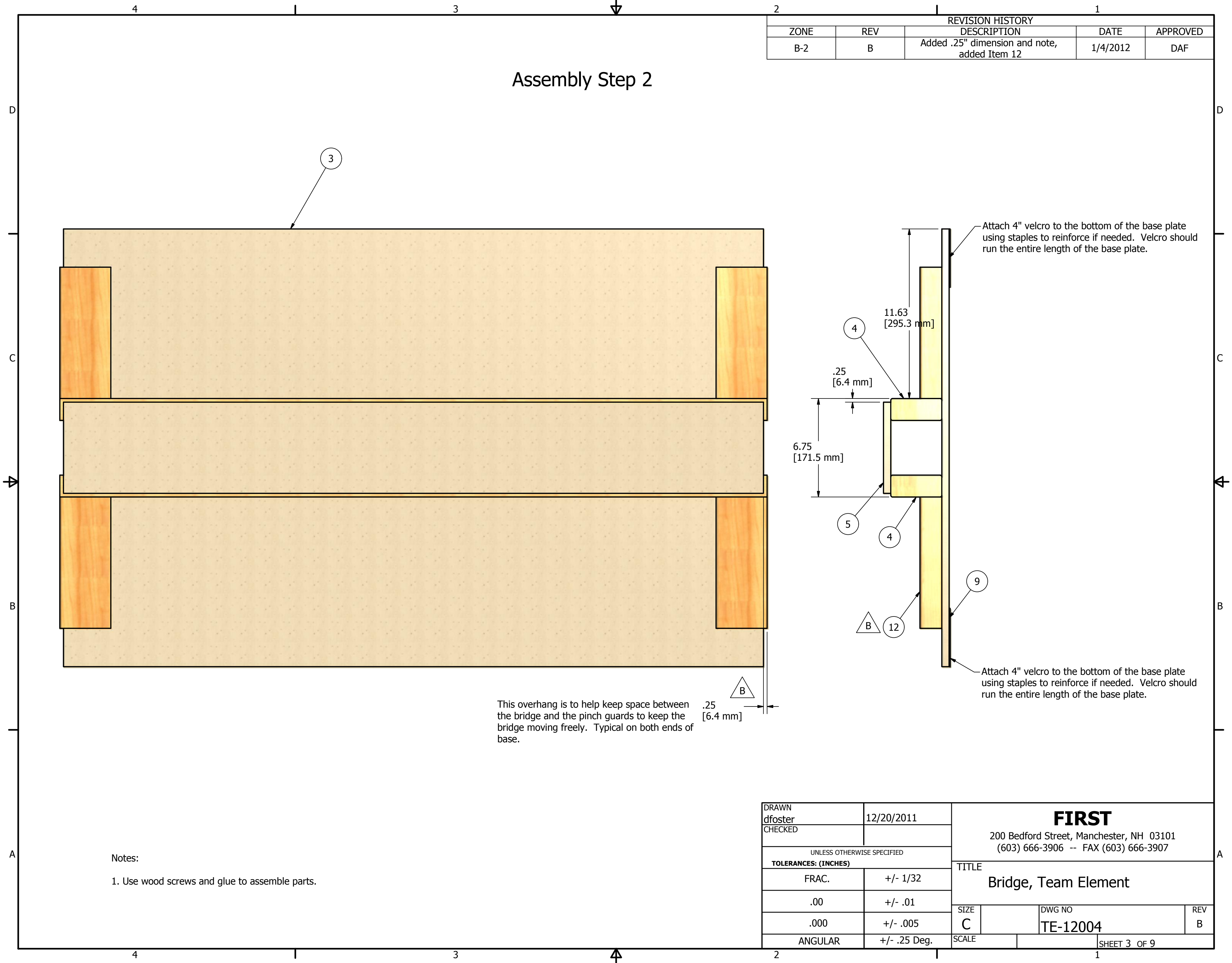
DRAWN dfoster		12/20/2011		<div>FIRST</div> <div>200 Bedford Street, Manchester, NH 03101 (603) 666-3906 -- FAX (603) 666-3907</div>			
CHECKED							
UNLESS OTHERWISE SPECIFIED				<div>TITLE</div> <div>Bridge, Team Element</div>			
TOLERANCES: (INCHES)							
FRAC.		+/- 1/32					
.00		+/- .01					
.000		+/- .005					
ANGULAR		+/- .25 Deg.		SIZE		DWG NO	REV
				C		TE-12004	B
				SCALE			SHEET 1 OF 9



Notes:

- 1. Use wood screws and glue as required to build assembly.

DRAWN dfoster CHECKED	12/20/2011	FIRST 200 Bedford Street, Manchester, NH 03101 (603) 666-3906 -- FAX (603) 666-3907		
UNLESS OTHERWISE SPECIFIED TOLERANCES: (INCHES)		TITLE Bridge, Team Element		
FRAC.	+/- 1/32	SIZE C	DWG NO TE-12004	REV B
.00	+/- .01			
.000	+/- .005	SCALE		SHEET 2 OF 9
ANGULAR	+/- .25 Deg.			



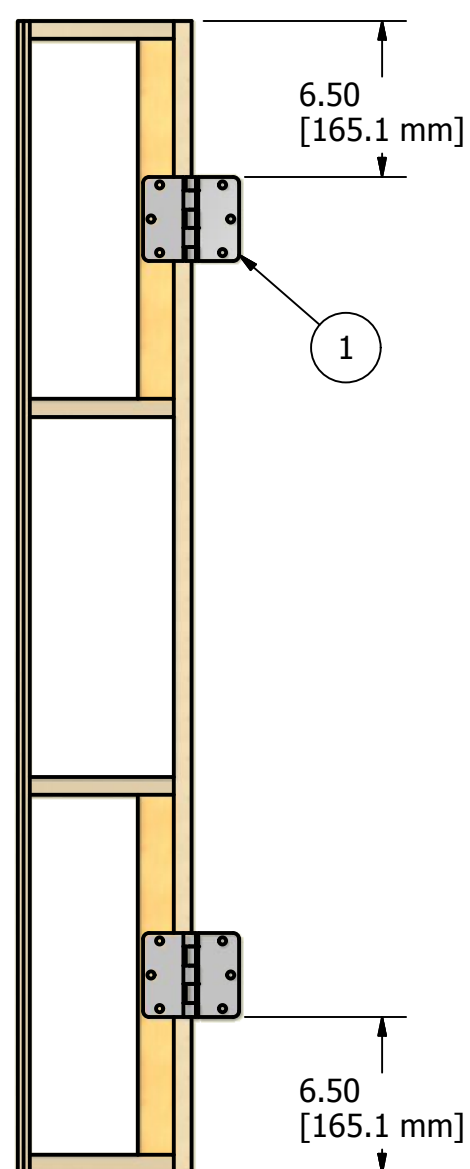
REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	APPROVED
B-2	B	Added .25" dimension and note, added Item 12	1/4/2012	DAF

Assembly Step 2

Notes:

1. Use wood screws and glue to assemble parts.

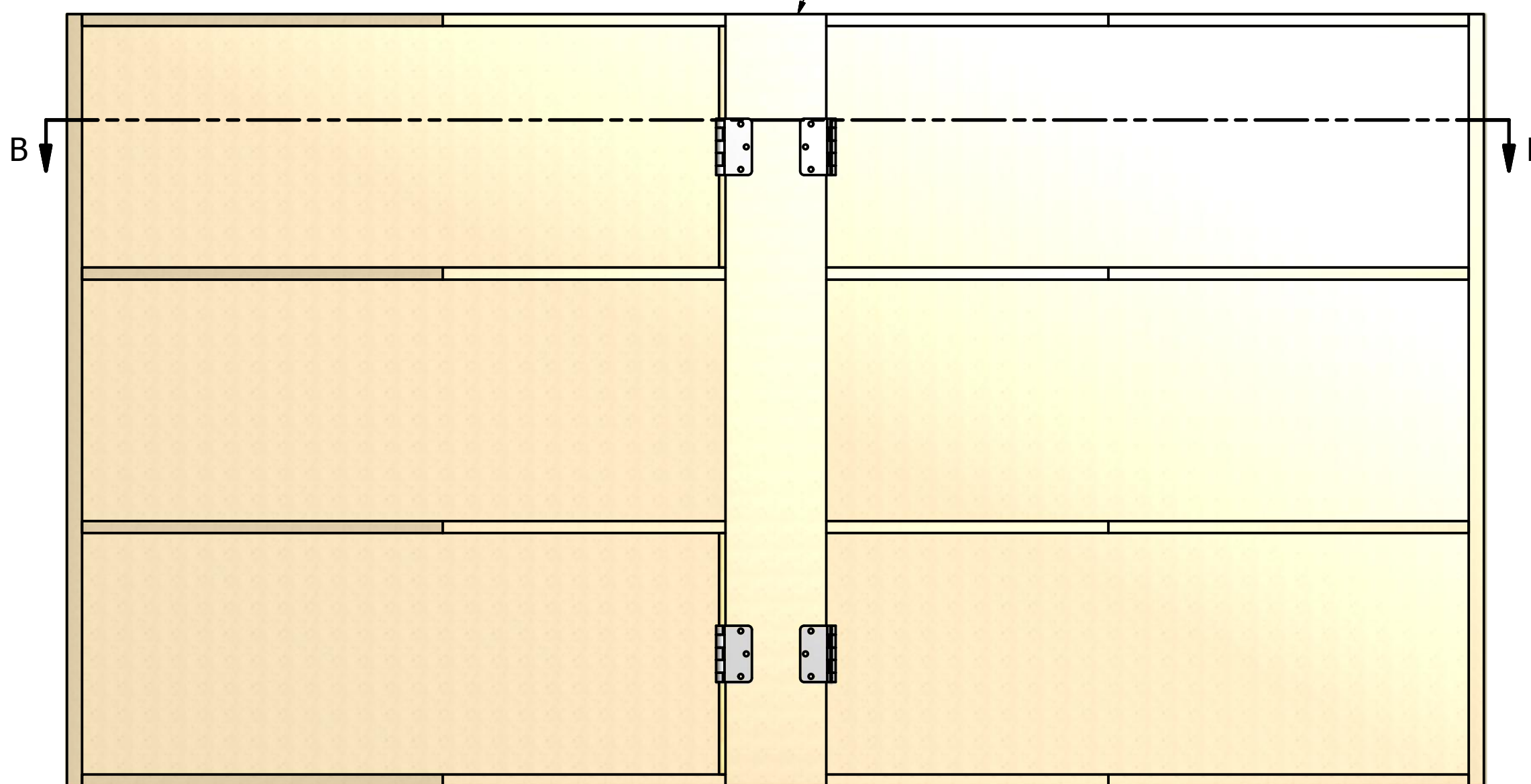
DRAWN dfoster		12/20/2011		<div>FIRST</div> <div>200 Bedford Street, Manchester, NH 03101 (603) 666-3906 -- FAX (603) 666-3907</div>			
CHECKED							
UNLESS OTHERWISE SPECIFIED				<div>TITLE</div> <div>Bridge, Team Element</div>			
TOLERANCES: (INCHES)							
FRAC.		+/- 1/32					
.00		+/- .01					
.000		+/- .005					
ANGULAR		+/- .25 Deg.		SIZE		DWG NO	REV
				C		TE-12004	B
				SCALE			SHEET 3 OF 9



40.50
[1028.7 mm]

SECTION B-B
SCALE 1/8

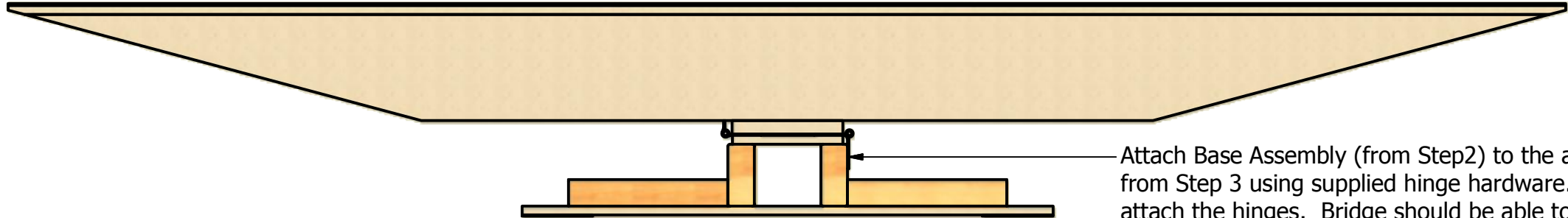
2 Note: Item 2 should NOT be permanently attached to anything but the hinges. It should be able to freely rotate about the hinges.



DRAWN dfoster		12/20/2011		<h1 style="text-align: center;">FIRST</h1> <p style="text-align: center;">200 Bedford Street, Manchester, NH 03101 (603) 666-3906 -- FAX (603) 666-3907</p>	
CHECKED					
UNLESS OTHERWISE SPECIFIED				<h2 style="text-align: center;">TITLE</h2> <h3 style="text-align: center;">Bridge, Team Element</h3>	
TOLERANCES: (INCHES)					
FRAC.	+/- 1/32				
.00	+/- .01				
.000	+/- .005		SIZE C	DWG NO TE-12004	REV B
ANGULAR	+/- .25 Deg.		SCALE	SHEET 4 OF 9	

REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	APPROVED
Sheet 4 C-2, Sheet 6 A-3	A	Item 11 was incorrectly labeled Item 4 (sheet 4), Resource Number on Item 3 was changed from 3 to 2. (sheet 6)	1/4/2012	DAF
A-2	B	Added Item 12	1/4/2012	DAF

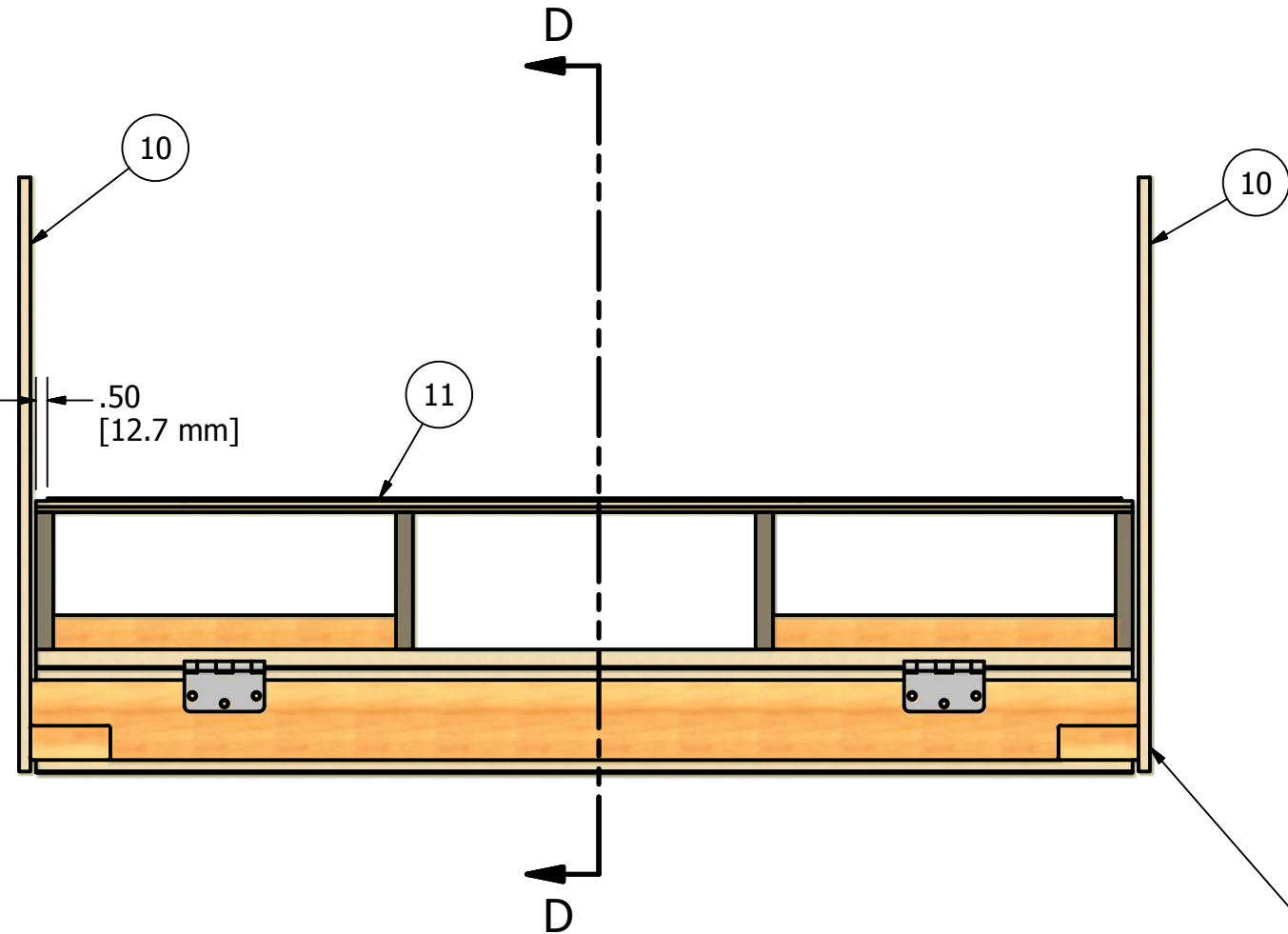
Assembly Step 4



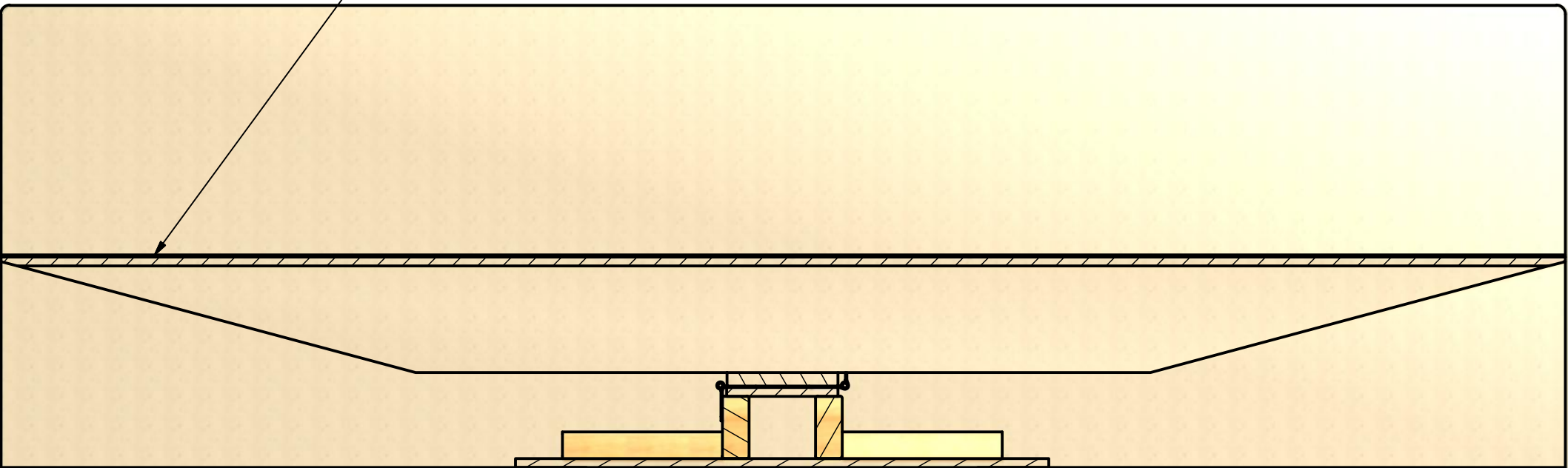
Attach Base Assembly (from Step2) to the assembly from Step 3 using supplied hinge hardware. Only attach the hinges. Bridge should be able to tilt both directions freely.



Assembly Step 5



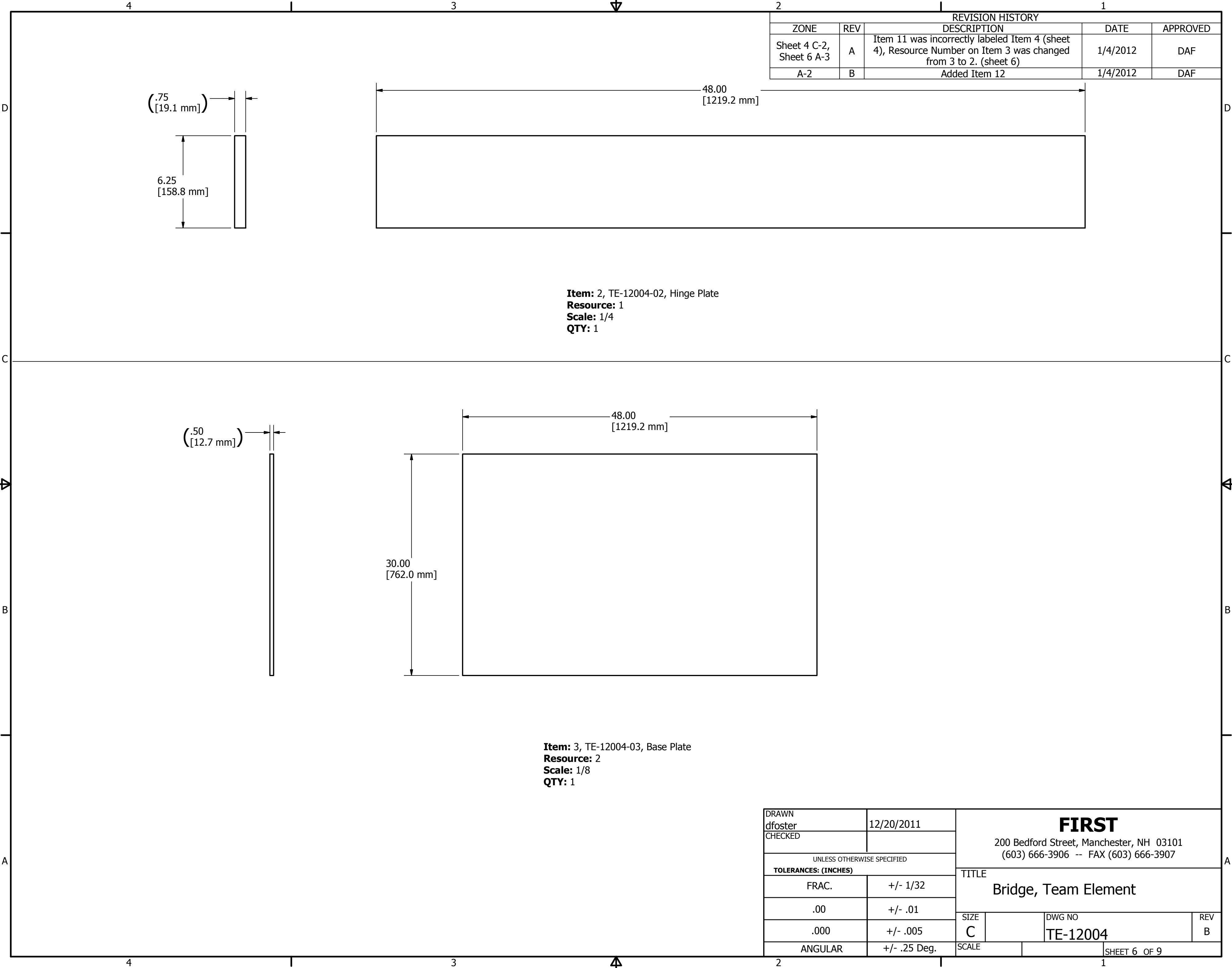
Connect the pinch guards to the baseplate assembly using screws and glue. Do not screw into the assembly from Step 3.

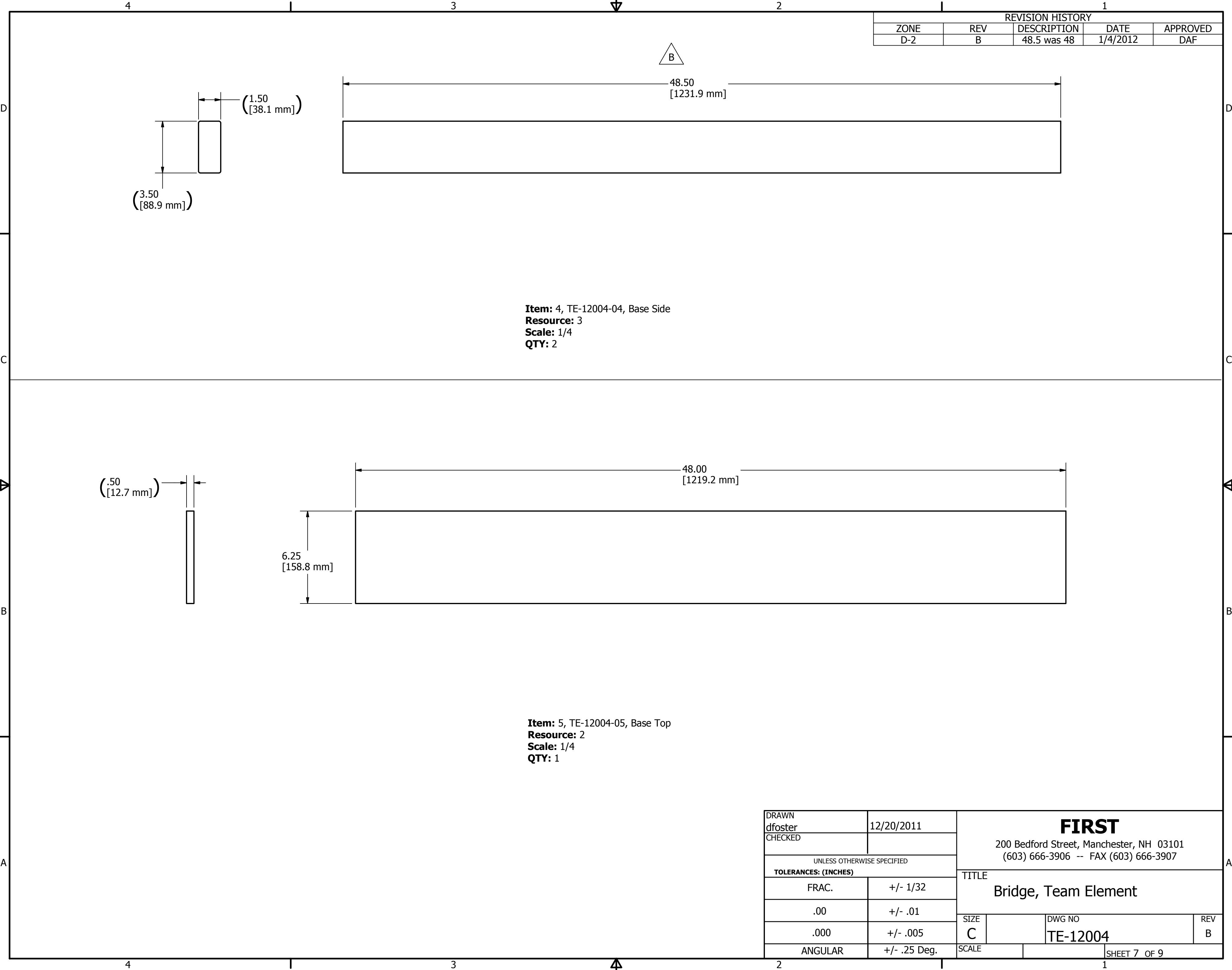


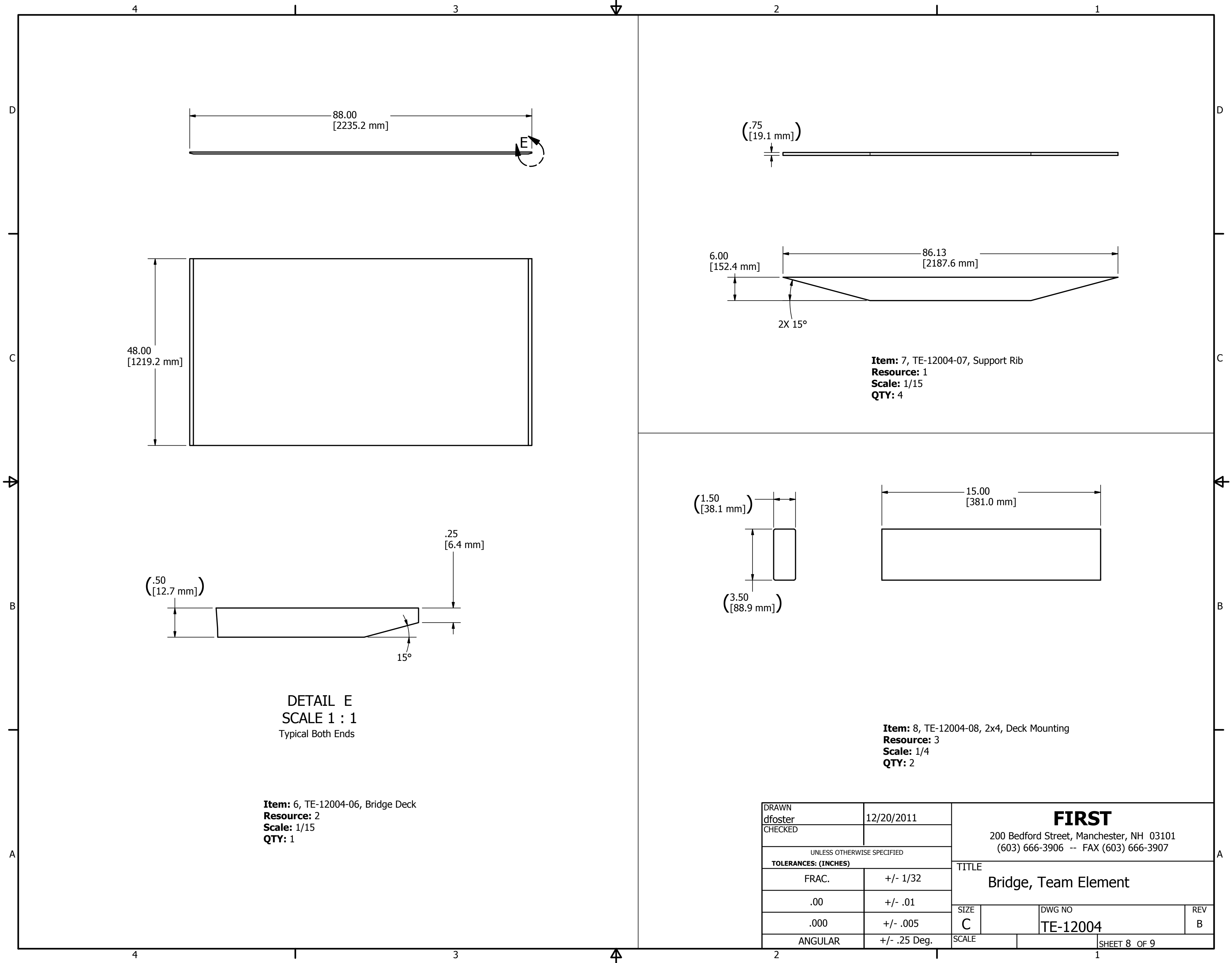
Attach Item 11 to the bridge deck using wood screws. If you don't have enough polycarbonate to do the entire bridge deck, you can attach strips only where the robot wheels contact the bridge to ensure similar performance to the official FRC bridge.

SECTION D-D
SCALE 1/8

DRAWN dfoster		12/20/2011		<div>FIRST</div> <div>200 Bedford Street, Manchester, NH 03101 (603) 666-3906 -- FAX (603) 666-3907</div>			
CHECKED							
UNLESS OTHERWISE SPECIFIED				<div>TITLE</div> <div>Bridge, Team Element</div>			
TOLERANCES: (INCHES)							
FRAC.		+/- 1/32					
.00		+/- .01					
.000		+/- .005					
ANGULAR		+/- .25 Deg.		SIZE		DWG NO	REV
				C		TE-12004	B
				SCALE			SHEET 5 OF 9







4 3 2 1

D D

C C

B B

A A

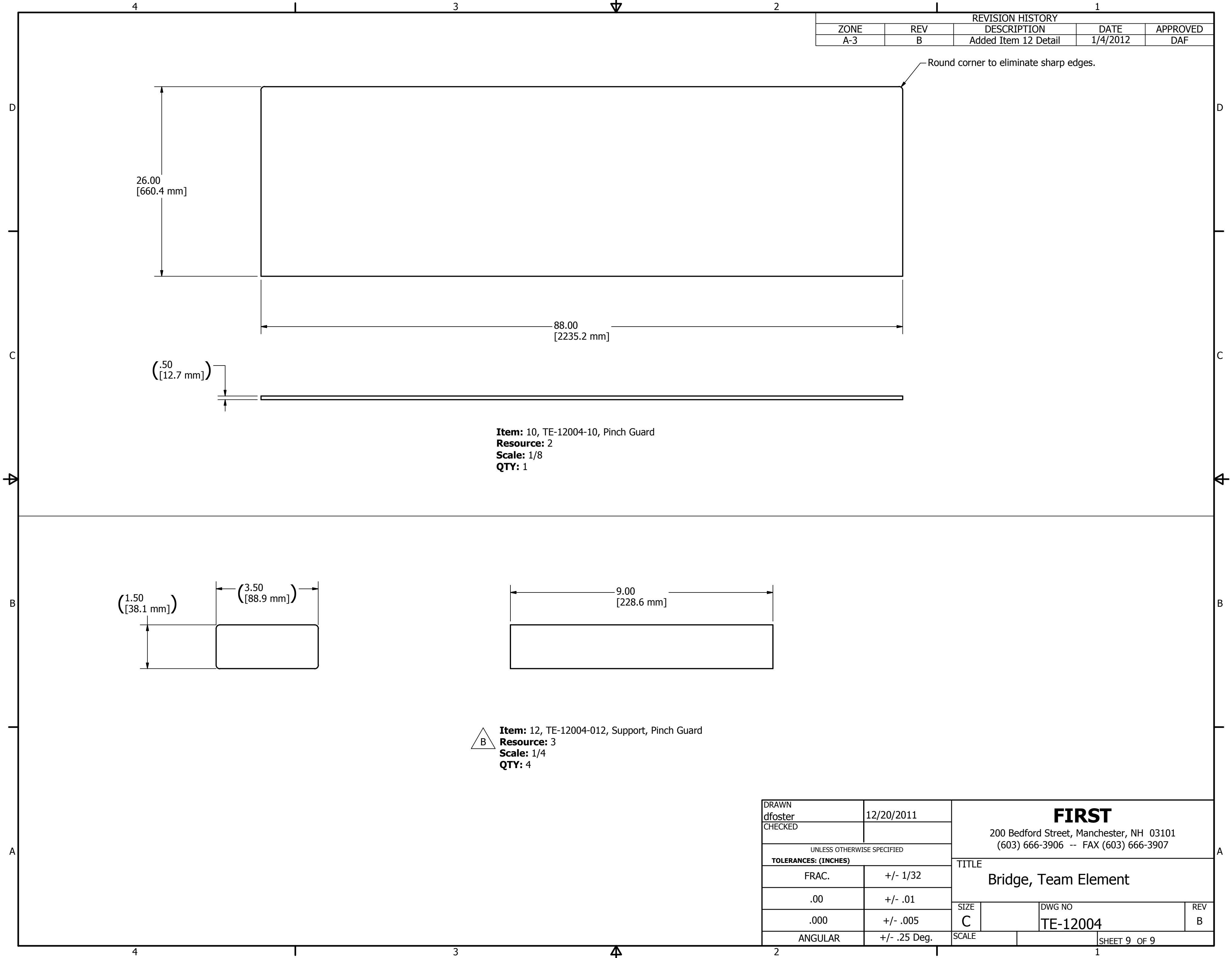
DETAIL E
SCALE 1 : 1
Typical Both Ends

Item: 6, TE-12004-06, Bridge Deck
Resource: 2
Scale: 1/15
QTY: 1

Item: 7, TE-12004-07, Support Rib
Resource: 1
Scale: 1/15
QTY: 4

Item: 8, TE-12004-08, 2x4, Deck Mounting
Resource: 3
Scale: 1/4
QTY: 2

DRAWN dfoster		12/20/2011		<div>FIRST</div> <div>200 Bedford Street, Manchester, NH 03101 (603) 666-3906 -- FAX (603) 666-3907</div>			
CHECKED							
UNLESS OTHERWISE SPECIFIED TOLERANCES: (INCHES)				TITLE Bridge, Team Element			
FRAC.		+/- 1/32					
.00		+/- .01		SIZE C			
.000		+/- .005					
ANGULAR		+/- .25 Deg.					
				SCALE		SHEET 8 OF 9	



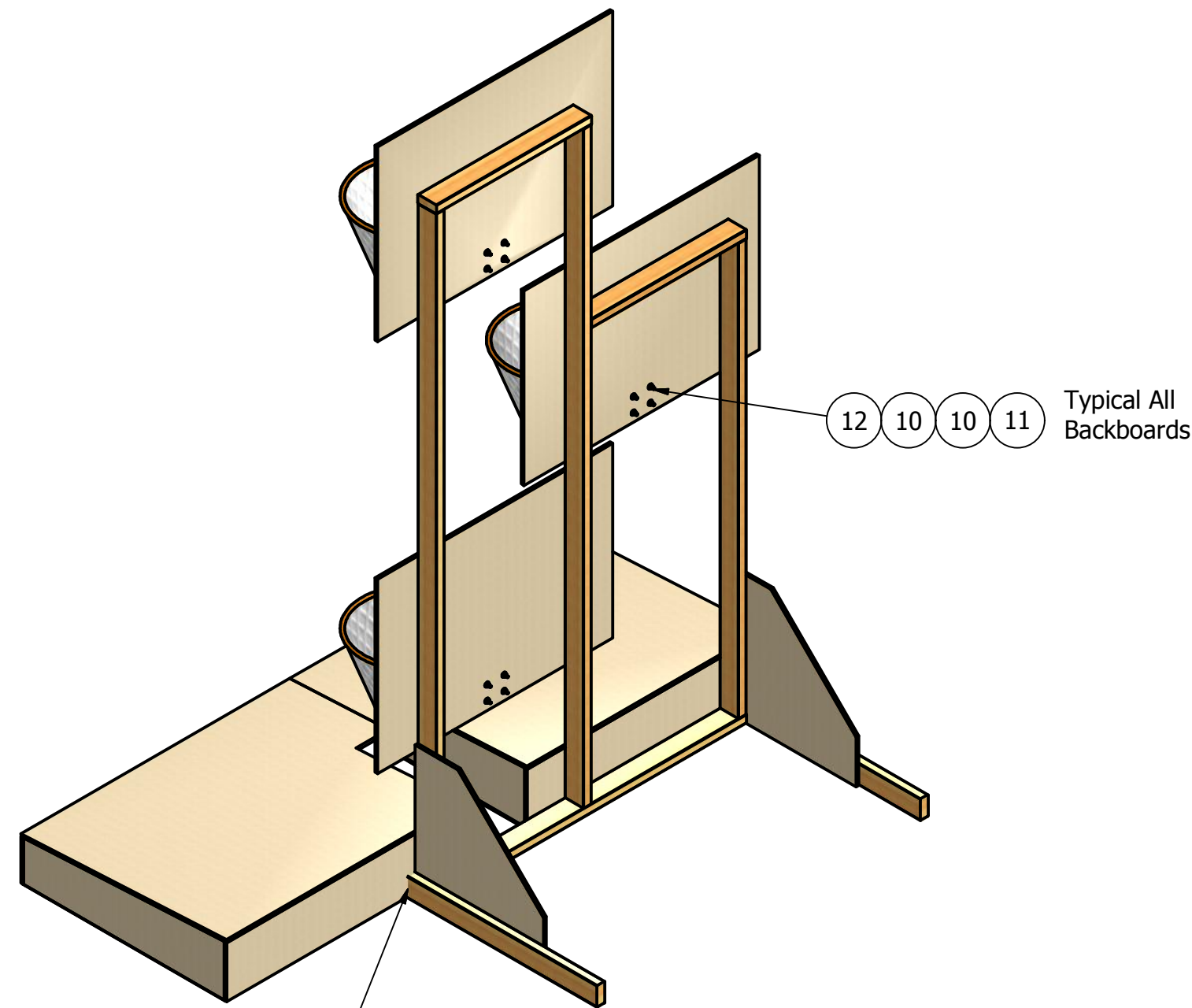
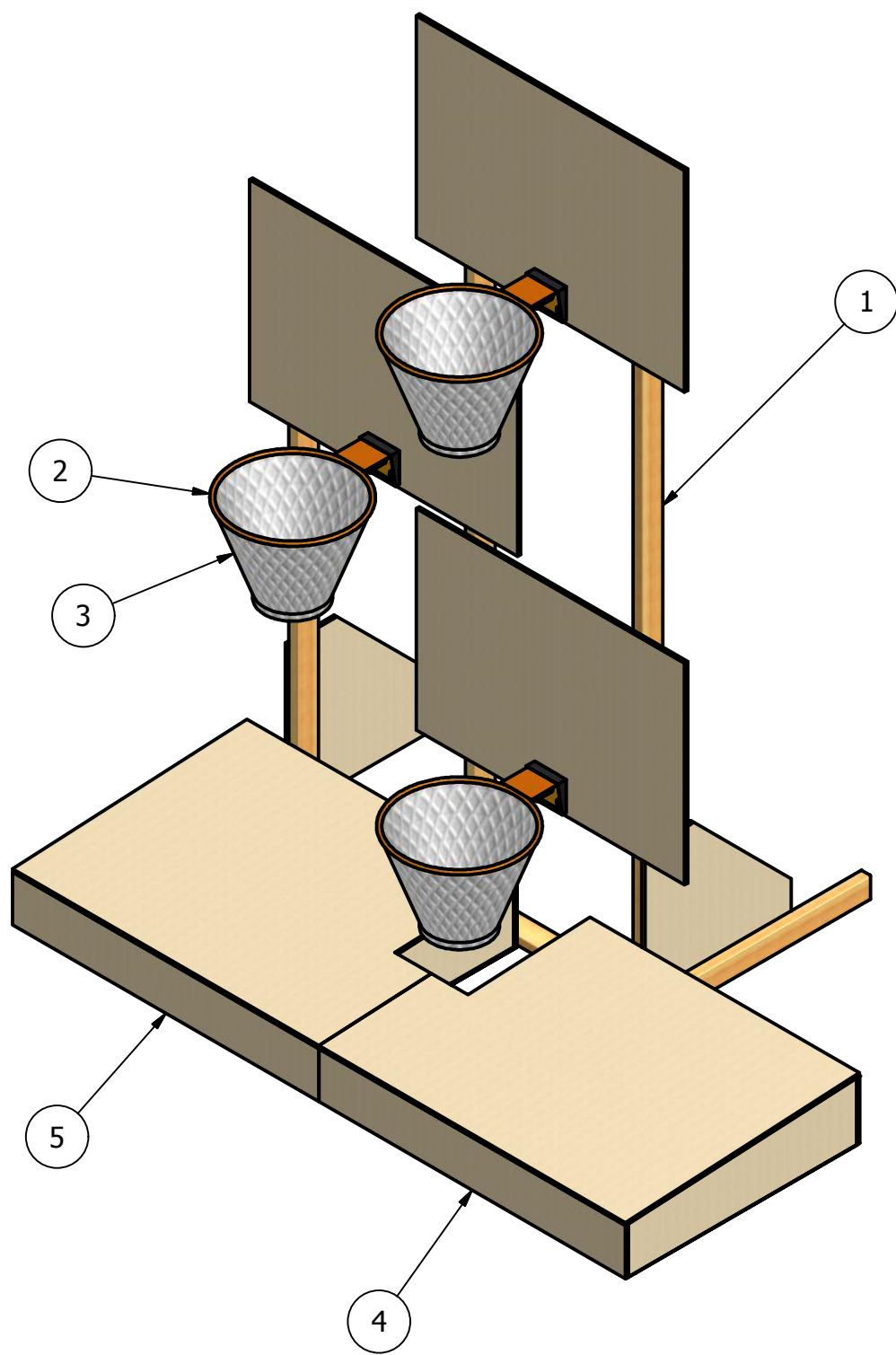
REVISION HISTORY				
ZONE	REV	DESCRIPTION	DATE	APPROVED
A-3	B	Added Item 12 Detail	1/4/2012	DAF

Round corner to eliminate sharp edges.

Item: 10, TE-12004-10, Pinch Guard
Resource: 2
Scale: 1/8
QTY: 1

Item: 12, TE-12004-012, Support, Pinch Guard
Resource: 3
Scale: 1/4
QTY: 4

DRAWN dfoster		12/20/2011		<div>FIRST</div> <div>200 Bedford Street, Manchester, NH 03101</div> <div>(603) 666-3906 -- FAX (603) 666-3907</div>			
CHECKED							
UNLESS OTHERWISE SPECIFIED				<div>TITLE</div> <div>Bridge, Team Element</div>			
TOLERANCES: (INCHES)							
FRAC.		+/- 1/32					
.00		+/- .01					
.000		+/- .005					
ANGULAR		+/- .25 Deg.		SIZE		DWG NO	REV
				C		TE-12004	B
				SCALE			SHEET 9 OF 9

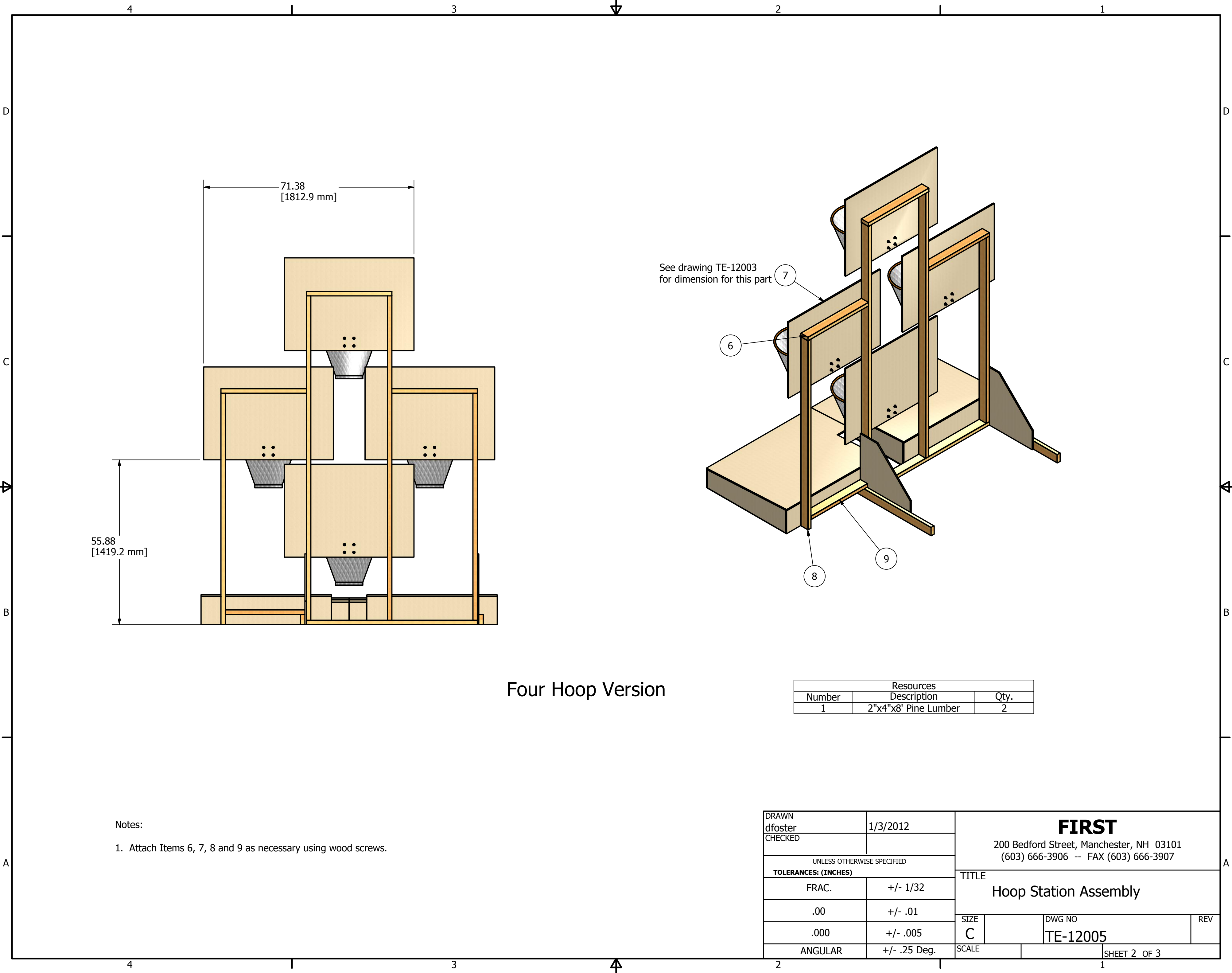


Cut Items 4 and 5 at assembly, so that they clear the support legs for Item 1.

- Notes:
- 1. Items 6, 7, 8 and 9 are only used for the four hoop version. (see sheet 2)
 - 2. Items 4 and 5 should be centered underneath the central baskets.

PARTS LIST			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	TE-12003	Backboard Assembly
2	4	GE-12013	Basketball Hoop
3	4	GE-12014	Basketball Net
4	1	GE-12103	Fender, Assembly
5	1	GE-12103_MIR	Fender, Assembly
6	1	TE-12005-01	Horizontal Support 1
7	1	TE-12003-02	Backboard
8	1	TE-12005-02	Vertical Support
9	1	TE-12005-03	Horizontal Support 2
10	32	HW-00003	Washer, Flat 1/4"
11	16	HW-00002	Nut, Lock 1/4-20
12	16	HW-00034	HHCS 1/4-20 x 1" Zinc Plate

DRAWN dfoster		1/3/2012		<div>FIRST</div> <div>200 Bedford Street, Manchester, NH 03101 (603) 666-3906 -- FAX (603) 666-3907</div>			
CHECKED							
UNLESS OTHERWISE SPECIFIED				TITLE <div>Hoop Station Assembly</div>			
TOLERANCES: (INCHES)							
FRAC.		+/- 1/32		SIZE C			
.00		+/- .01					
.000		+/- .005					
ANGULAR		+/- .25 Deg.		SCALE		SHEET 1 OF 3	
				DWG NO TE-12005		REV	



Four Hoop Version

Resources		
Number	Description	Qty.
1	2"x4"x8' Pine Lumber	2

- Notes:
1. Attach Items 6, 7, 8 and 9 as necessary using wood screws.

DRAWN dfoster		1/3/2012		<div>FIRST</div> <div>200 Bedford Street, Manchester, NH 03101</div> <div>(603) 666-3906 -- FAX (603) 666-3907</div>			
CHECKED							
UNLESS OTHERWISE SPECIFIED				<div>TITLE</div> <div>Hoop Station Assembly</div>			
TOLERANCES: (INCHES)							
FRAC.		+/- 1/32					
.00		+/- .01					
.000		+/- .005					
ANGULAR		+/- .25 Deg.		SIZE		DWG NO	REV
				C		TE-12005	
				SCALE		SHEET 2 OF 3	

